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1854

THE STUDENT,
AND
FAMILY MISCELLANY.

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DEVOTED TO

The Diffusion of Useful Knowledge

AND

HOME INSTRUCTION;

EMBRACING THE SCIENCES, NATURAL HISTORY, BIOGRAPHY, TRAVELS
POETRY, ETC.; ALSO DESIGNED AS

A MONTHLY READER FOR SCHOOLS.

~~~~~  
EDITED BY N. A. CALKINS.  
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"Scatter diligently, in susceptible minds,
The germs of the good and beautiful;
They will develop there to trees, bud, bloom,
And bear the golden fruit of Paradise."

VOLUME IX.

NEW YORK:
N. A. CALKINS, 348 BROADWAY.
1854.

Give your children fortunes without education, and at least half the number will go down to the tomb of oblivion, perhaps to ruin. Give them education, and they will be a fortune to their country. It is an inheritance worth more than gold, for it buys true honor; they can never spend nor lose it. Give your children education, and no tyrant will triumph over your liberties. Give your children education, and the silver-shod horse of the despot will never trample in ruins the fabric of your freedom.

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VOL. IX.

MAY, 1854.

No. 1.

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THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

N. A. Calkins, EDITOR.



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N. A. CALKINS, PUBLISHER,
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One Dollar a Year, in Advance.

Single Numbers, 10 Cents.

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To Correspondents.

TO WRITERS.—It is our design to make *The Student* a richly instructive monthly boon to its many thousands of readers, bearing a choice collation of mental food wherever it goes. To aid us in this, we respectfully solicit contributions from the friends of education, and all who write to do good, of short essays, colloquies, narratives, scientific subjects treated in a popular style, or any other topic within the scope of its design, calculated to stimulate to a love for learning, and aiming to promote pure morals, correct habits, and a love of whatever will tend to make all better, wiser, and happier.

In return for each article thus received and accepted for publication, filling one or more pages, we will send a copy of *The Student* one year.

ZACHER.—We shall send you *The Student*, and hope you will favor us again; such fragmentary contributions are often quite acceptable.

S. G. R., of N. Y.—So many have sought the favors of the muse in memory of that lovely creature, *Eva*, that her powers of inspiration seem too much exhausted for others to court her smiles with any hopes of success; yet your efforts have not been useless. However, those lines are more suitable for the columns of a newspaper than for *The Student*. You would do well to choose some different theme; and we should be pleased to have you favor us again.

T. L. T., of Wis.—Thank you for those lines from Miss H. R. S. We intend to use them in some future number. Will you send us her name and address? The story of the Child-Martyrdom we had heard, and as it has been widely published, we shall not use it.

E. A. C., of N. Y.—Your article is very well written, as far as the combination of words, but it seems to be aimless, and destitute of any useful facts, thoughts, or teachings.

Business Notices.

THE STUDENT will be sent at club prices to different post-offices, when desired, as it frequently happens that subscribers wish to make a present of a volume to their friends who reside in other places.

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Office of The Student, Room No. 10, Appleton's Building, 348 Broadway, N. Y.

THE STUDENT,
AND
FAMILY MISCELLANY.

FEW WORDS INTRODUCTORY.

ON commencing the present volume under new auspices, it seems appropriate that we should say a few words relative to our enterprise, its past and present, its plans and aims. For this purpose, kind reader, we now solicit your attention.

Eight years ago the first steps were taken toward publishing *THE STUDENT*—a family and educational periodical—designed to be a co-laborer with all upon whom devolves the training of the young for the duties and usefulness of life. Its plans combine something to please the tyro in reading, instruction rendered attractive to youth, and that adapted to those of riper years. Its earnest aims are to awaken a more universal and active desire for self-improvement in all that will make *true men* or *true women*.

Among its plans is its design as a reader for schools. By its monthly arrival it takes advantage of that awakening ardor always manifested on the part of children on the introduction of a new book into their class, and thus it enkindles in them a love for reading; that once established, they possess the key to knowledge. In its reading lessons, thoughts and subjects are presented which readily suggest the relation between school-education and the every-day scenes and realities of active life. At first this idea of a monthly reader was new, but it readily gained the approbation of those who tried it, and now the teachers and pupils of a hundred schools hail the arrival of *THE STUDENT* with enthusiastic delight; yet we trust that its mission in the school-room has but just commenced. Awaken a child's ambition, and implant in its mind a taste for literature, and more is gained than by years of school-room drudgery, where the heart works not in unison with the head.

As a *Family Miscellany*, *THE STUDENT* has grown into public favor, until it now numbers among its friends and readers more than ten thousand. Since its commencement several changes have been made, but in them all, our aim has been improvement, and the better adaptation which

VOL. IX.—NO. 1.—MAY, 1854.

time and experience suggested for the accomplishment of the ultimate object. With the present number the work appears in a new form, and with *thirty-six* octavo pages, instead of *thirty-two*, as heretofore. Besides, it is now printed on new type, with the best of illustrations, and on fine paper. Whatever merits it possessed in the character of its reading during its past existence, we shall endeavor to retain, and change this feature only by adding such as we trust will improve its usefulness, and make it more acceptable to its patrons.

Having said thus much of *THE STUDENT*, of its past success and its aims, we now leave its pages to speak for themselves in regard to its promises for the future. Accepting the many wishes already freely offered for its prosperity and success in its worthy cause, we commend it to the kind encouragement and patronage of all who earnestly desire to aid in guiding the rising generation in the paths of virtue, knowledge, usefulness, and honor, and of increasing happiness in the family circle.



CHARACTER, AND ITS FOUNDATION.*

BY J. A. JAMES.

IT is recorded of Francis I. of France, that, after his disastrous defeat in the battle of Pavia, by the Emperor Charles V. of Germany, he announced the catastrophe to his mother in the following terse and magnanimous manner: "*Every thing is lost but my honor.*" It was a saying worthy of a greater and a better man. Similar to this has been the reflection and expression of others amid the calamities of human life: of men who, sitting down amid the ruins of their fortunes, their prospects, and their hopes, have wiped away their tears, and who, nobly rising in the consciousness of integrity above their misfortunes, have said, "I have lost every thing but my character;" and with that consciousness, such men are less, far less to be pitied than they who have risen to wealth upon the ruins of their reputation.

No man can be said to be in abject penury who is rich in whatsoever things are lovely and of good report; while, on the other hand, neither wealth, nor learning, nor science can dignify a man without character. This is the best capital with which to begin life; it affords the most reasonable hope of success in passing through it, and will yield the sweetest reflections at the close of it.

* Extract from a lecture delivered in Birmingham, England, to an audience of about 4,000, the majority of whom were young men.

If it were granted you at your own expense, and under your own directions, to lay the foundations and to raise the walls of some magnificent structure, which should attract the admiration of the world, defy the assaults of time, and hand down your name to future ages, what an object of ambition would thus be placed within your reach! But how much nobler in itself, how much more valuable to you, and how much more enduring, is that which is actually proposed to you by the will of God, in the foundation and construction of your own character!

By *character* we mean the prevailing and habitual qualities or dispositions of the mind, which express themselves in appropriate conduct, and distinguish their possessor from other men. A mere occasional act, however splendid an instance of good conduct it may be, does not constitute character, even though it should be repeated occasionally at long intervals. A miser, for instance, may, under some very peculiar circumstances, be induced to perform an act of even munificent liberality, but it is not his *character* to be liberal.

Acts are sometimes done by men so unlike their prevailing disposition, that we are astonished at them, as phenomena which exceedingly perplex us when we make inquiry into their cause. Even good men, under the power of temptation, occasionally do things which are very unlike themselves, and contrary to their character; which, however, still survives the shock of these aberrations. A fitful virtue is of little value, and yet it is all that some men have. Their minds seem to be ever in an intermittent fever, in which their cold and hot fits are in constant alternation.

Its *foundation*.—This word is suggestive: the foundation of a building is laid in the earth. How much labor is bestowed in digging and throwing out the soil, and getting a trench ready to receive the materials which are to compose the fabric! How much material is lodged out of sight that is totally forgotten by the ignorant observers of the structure! Who, for instance, in passing St. Paul's Cathedral, and admiring its lofty dome and gilded cross, dreams of the masses of stone on which the whole rests, and without which the building must soon have been a heap of ruins? Yet there is the foundation, vast and deep, though buried, hidden, and nearly forgotten.

So it must be with character. The foundation must be laid in the mind, and heart, and conscience, and memory. There must be a digging into the soul; a throwing out of much that is in the way

of what must be introduced ; a making room for much material to be laid there ; and a careful and laborious deposit of a suitable substratum. Something strong, broad, firm, must be buried and hidden in the soul. A lofty superstructure of character can no more be raised, which shall stand and be permanent, without this, than a towering building can be a permanent one, that is erected *upon* the surface of the ground, and not *beneath* it.

The soul, not in its intellectual aspect and capacity merely, but in its moral and immortal one ; the soul, with its affections, passions, and propensities ; the soul, the seat of will and conscience ; the soul, as the ground in which the basis of character is laid, must be a subject of serious consideration. Many men carry about their minds with less solicitude than they do their watches, knowing and caring almost as little of the faculties and power of the one as they do of the mechanism of the other. This must not be with those who would form a good character.

Of what materials, then, must the foundation of character be formed ? What is the mighty granite which must be deposited for a character that is to stand for eternity ? Science ? Literature ? The Arts ? No. These may do for the intellectual, but not for the moral character. It is *principle, moral principle*, that must form the basis of this mighty foundation. Moral character can not rest on astronomy, geology, chemistry, electricity, magnetism. These things are admirable, useful, noble, sublime ; but they can no more do for the basis of character, than jewelry, or diamonds, or the telescope, or the galvanic battery, or the magnet would do for the foundation of a pyramid or a temple. By principle, I mean not opinions only, but convictions ; not speculative theories on morals, but practical conclusions ; not sentiments floating in the judgment, but rooted in the heart. To attempt to form a character without established principles, is like erecting a building without a foundation.

In the *construction* of character there are decorations to be studied and acquired. To advert again to the construction of a building, it may be made of substantial materials, and may have many good rooms, and answer well enough the purpose of a habitation, but all the while it may have a barn-like appearance. There are none of the tasteful ornaments of architecture about it : no Ionic grace ; no Corinthian elegance ; nor even Doric chasteness. Or, to refer to the human form, there may be symmetry, strength, even beauty, but the bearing may be low and vulgar, the manner repulsive, and the address unprepossessing. Is it not sometimes thus with character ?

There may be the possession of sterling integrity and great moral worth ; in short, all the things that are true, and honest, and pure, and just ; but not the things that are lovely. There is wanting the amiable temper, the courteous address, the attraction of kindness. It is a fine body in an uncomely dress ; it is a lump of gold, but amorphous and unburnished ; it is a diamond, not cut and flashing with all the hues of the rainbow, but dull and covered with all its earthly incrustations.

Character is the best thing on earth ; why not then invest it with all the charms of which it is susceptible, and compel men to love and admire it as they do a jewel, both for its own sake and for the sake of its beautiful setting also ? The character of every man, far more than his wealth, is public property ; and should be so exhibited as not only to attract attention, but to excite admiration and emulation.

CLEAN TEETH.

MICROSCOPIC examinations have been made, by scientific gentlemen, of the matter deposited on the teeth and gums of numerous individuals, from all classes of society, in various conditions of health. The result was, that in nearly every case animal and vegetable parasites were discovered. Of the animal parasites there were three or four species, and of the vegetable, one or two. The number of these parasites was found to be greater or less in proportion to the cleanliness of the teeth ; but even those who were in the daily habit of using the tooth-brush, powders, and washes, were not entirely free from them. Nor do tobacco juice and smoke impair their vitality the least. The only persons who were found to be completely free, used soap daily in cleaning their teeth.

Soap appears to be the only article that will effectually destroy these parasites, hence we may infer that it is superior to every thing else for cleansing and preserving the teeth. In all cases where it has been tried, it has received unqualified commendation. We have used it for several years, and can attest to its superiority as a dentrifice. The purest of soap should be obtained, and if scented with sassafras, winter-green, or something similar, its use will be pleasant. The brush should be wet and rubbed on the soap, and, after thoroughly brushing the teeth, the mouth rinsed with water. The teeth should be cleaned after the last meal at night, again in the morning, and the mouth rinsed with water after each meal.



LONGFELLOW.

AMONG American poets, no one can be called the *scholar* with greater propriety than Professor Longfellow. Not only has his life been passed amid halls of classic lore, but his themes and style all remind us of scholarship and association with books. Actions do not always reveal one's real character; but there are few authors who do not exhibit in their writings the lives they lead. With Longfellow, one of the first things that strikes us is his scholarship; yet he is never pedantic; he unconsciously reminds us of the life he has led.

Henry Wadsworth Longfellow is the son of the Hon. Stephen Longfellow, of Portland, Maine. He was born in that city on the 27th of February, 1807. Of his youth we have no account, save that at the early age of fourteen he entered Bowdoin College, from which he graduated four years afterward, in 1825. For a few months he studied law in his father's office, but being offered a Professorship of Modern Languages in the college from which he

had graduated, he immediately set at work to fit himself for the duties of that office.

In 1826 he sailed for Europe, where he passed three years and a half, residing or traveling in France, Italy, Spain, Germany, Holland, and England. He returned to this country in 1829, and entered upon the duties of his office. In 1831 he was married. The youthful professor was a great favorite with the collegians. When not engaged in the labors of instruction, he was himself a student, or a weaver of those beautiful verses in which he has exhibited so much cultivation. In a few years he became widely known as a graceful poet, and a most elegant and accomplished scholar.

The Professorship of Modern Languages and Literature in Harvard College becoming vacant, in 1835, by the resignation of Mr. George Ticknor, Longfellow was called to fill the vacant chair. He now resigned his professorship at Brunswick, and again went abroad, to make himself a more thorough master of the languages and literature of northern Europe. On this occasion he passed the summer in Denmark and Sweden; the autumn and winter in Germany; and the following spring and summer in Switzerland. While in Germany he had the misfortune to lose his wife.

In the autumn of 1836 he returned to America, and immediately entered upon the duties of his professorship at Cambridge, where he has ever since resided, except during a short visit to Europe in 1842, for the restoration of his health. He married a second wife, and now resides in elegant style in the old Craige house, formerly the head-quarters of Washington, at Cambridge, Massachusetts. In a beautiful poem, addressed to one of his children, he thus alludes to it:

“Once, ah! once within these walls,
One whom memory oft recalls,
The Father of his Country, dwelt;
And yonder meadows, broad and damp,
The fires of the besieging camp,
Encircled with a burning belt.

“Up and down these echoing stairs,
Weary with the weight of cares,
Sounded his majestic tread;
Yes, within this very room
Sat he in those hours of gloom,
Weary both in heart and head.”

No man in New England is more popular among his friends and the public ; and few are more deservedly so than Longfellow. He is surrounded by a rare collection of books, and visited by the great, the wise, and the good of both hemispheres. Much might be said in praise of his excellent qualities, but it is sufficient to add that he is truly a *man* and a gentleman.

THE AIR WE BREATHE.

BY JAMES F. W. JOHNSTON, M. A.

THE earth we inhabit is surrounded by an atmosphere of air, the height of which is known to be at least forty-five miles. It presses upon the earth with a weight equal, at the level of the sea, to about fifteen pounds on every square inch of surface. As we ascend high mountains, this weight becomes less ; and as we go down into deep mines, it becomes sensibly greater.

We breathe this atmospheric air, and without it we could not live a single moment. It floats around the earth in almost perpetual motion ; and, according to the swiftness with which it moves, it produces gentle breezes, swift winds, or terrible tornadoes.

Though very familiar to us, and regarded with little curiosity, this air is yet very wonderful, both in itself and in its uses.

Though apparently pure and elementary, it is by no means either a simple or pure substance. It is a mixture of several different kinds of matter, each of which perform a beautiful and wise part in relation to animal and vegetable life. Four substances, at least, are known to be necessary to its composition. Two of these, oxygen and nitrogen, form nearly its entire bulk ; the two others, carbonic acid and watery vapor, being present only in minute quantities.

OXYGEN is a kind of air or gas, which, like the atmosphere itself, is without color, taste, or smell. A candle burns in it with much greater brilliancy and rapidity than in common air. Animals also breathe in it with an increase of pleasure ; but it excites them, quickens their circulation, throws them into a state of fever, and finally kills them, by excess of excitement. They live too rapidly in pure oxygen gas, and burn away in it like the fast-flaring candle. This gas can not be seen by the eye, or detected by any of the other senses. Its presence may be readily perceived, however, by the

brilliancy with which a lighted candle will burn when immersed in it.

NITROGEN is also a kind of air which, like oxygen, is void of color, taste, and smell ; but a lighted candle is instantly extinguished, and animals cease to breathe when introduced into it. Oxygen is one ninth part *heavier*, and nitrogen is one thirty-sixth part *lighter*, than common air.

CARBONIC ACID is a kind of air which, like oxygen and nitrogen, is void of color ; but, unlike them, possesses a slight odor, and a perceptibly sour taste. Burning bodies are extinguished, and animals cease to breathe when introduced into it. It is one half heavier than common air, and can therefore be poured through the air from one vessel to another like water. It is the escape of this gas which gives their sparkling briskness to fermented liquors, to soda-water, and to the waters of some mineral springs.

WATERY VAPOR is the steam or vapor, visible or invisible, which ascends from a surface of water when exposed to the air. When water is spilled upon the ground in dry weather, it soon disappears, rising in invisible vapors and floating buoyantly among the other constituents of the atmosphere.

These four substances the air everywhere and always contains. They are all necessary to the daily wants of animal and vegetable life ; but the two gases, oxygen and nitrogen, form so large a proportion of the whole, that we are accustomed to say of dry air, that it consists of nitrogen and oxygen only, in the proportion of four gallons of the former to one of the latter. More correctly, however, air, when deprived of the watery vapor and carbonic acid it contains, consists, in one hundred gallons, of seventy-nine of nitrogen mixed with twenty-one of oxygen.

The carbonic acid exists in air in very small proportion. At ordinary elevations there are only about two gallons of this gas in every five thousand of air. It increases, however, as we ascend, so that at the heights of eight or ten thousand feet, the proportion of carbonic acid is nearly doubled. Even this increased quantity is very small ; and yet its presence is essential to the existence of vegetable life on the surface of the earth.

Being heavier than common air, it appears singular that the proportion of this gas should increase as we ascend into the atmosphere. Its natural tendency would seem to be rather to sink toward the earth, and there to form a layer of deadly air, in which neither animal nor plant could live. But independent of winds and aerial

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currents, which tend to mix and blend together the different gases of which the air consists, all gases, by a law of nature, tend to diffuse themselves through each other, and to intermix more or less speedily, even where the utmost stillness prevails, and no wind agitates them. Hence a light gas, like hydrogen, does not rise wholly to the utmost regions of the air, there to float on the heavier gases; nor does a heavy gas, like carbonic acid, sink down so as to rest permanently beneath the lighter gases.

In obedience to this law, carbonic acid in all places slowly rises, or slowly sinks, and thus a nearly uniform purity is maintained in the air we breathe. Its presence in the atmosphere may be shown by the formation of a white film of carbonate of lime on the surface of lime-water when it is exposed to the air.

The watery vapor varies in quantity with the climate and temperature of the place. It is less in cold seasons and climates generally than in such as are hot. It seldom forms more than one sixtieth, or less than one two-hundredth of the bulk of the air. Its presence may be discovered in the hottest days by pouring ice-cold water into a tumbler, when the vapor of the air will rapidly condense on the outer surface of the vessel, in the form of dew-drops.

From every breath of air which the animal draws into its lungs, it extracts a quantity of oxygen. The oxygen thus obtained is a part of the natural food of the animal, which it can obtain from no other natural source, and new supplies of which are necessary to it every moment. The oxygen of the atmosphere, therefore, is essential to the very existence of life in the higher orders of animals.

The candle burns also, and all combustible bodies kindle in the air, only because it contains oxygen. This gas is a kind of necessary food to flaming and burning bodies; so that were it absent from the earth's atmosphere, neither light nor heat could be produced from coal, wood, or other combustible substances. The proportion, also, in which oxygen exists in the air is adjusted to the existing condition of things. Did the atmosphere consist of oxygen only, the lives of animals would be of most brief duration, and bodies once set on fire would burn so fast as to be absolutely beyond control. The oxygen is therefore mixed with a large proportion of nitrogen. This gas harmlessly dilutes and weakens it, and prolongs its action on the system, as water dilutes wine or spirits, and assuages their too fiery influence upon the animal frame.

Every green leaf that waves on field or tree sucks in, during the sunshine, carbonic acid from the air. It is as indispensable to the

life of the plant, as oxygen is to the life of the animal. Remove carbonic acid from the air and all vegetable growth would cease. It must, therefore, be a necessary constituent of the atmosphere of our earth. But carbonic acid is poisonous to animals. It is for this reason that the proportion of this gas contained in the air is so very small. Were this proportion much greater than it is, animals, as they are now constituted, could not breathe the atmosphere without injury to their health.

On the other hand, that growing plants may be able to obtain a sufficiently large and rapid supply of carbonic acid from a gaseous mixture which contains so little, they are made to hang out their many waving leaves into the atmosphere. Over the surface of these leaves are sprinkled countless pores or mouths, which are continually employed in separating and drinking in carbonic acid gas. The millions of leaves which a single tree spreads out, and the constant removal of the moving air in which they are suspended, enable the living plant to draw an abundant supply for all its wants, from an atmosphere already adjusted to the constitution of living animals.* This constant action of the leaves of plants is one of the natural agencies by which the proportion of carbonic acid in the lower regions of the atmosphere is rendered less than it is in the higher regions.

So, also, the watery vapor of the atmosphere is not less necessary to the maintenance of life. The living plant consists of water to the amount of nearly three fourths of its whole weight, and from the surface of its leaves water is continually rising into the air in the form of invisible vapor. Were the air absolutely dry, it would cause this water to evaporate from their leaves more rapidly than it could be supplied to them by the soil and roots. Thus they would speedily become flaccid, and the whole plant would droop, wither, and die.

The living animal, in like manner is made up for the most part of water. A man of one hundred and fifty-four pounds' weight contains one hundred and sixteen pounds of water, and only thirty-eight pounds of dry matter. From his skin and from his lungs water is continually evaporating. Were the air around him perfectly dry, his skin would become parched and shriveled, and thirst would oppress his feverish frame. The air which man breathes from his lungs is loaded with moisture. Were that which he draws in en-

* A common lilac tree, with a million of leaves, has about four hundred thousand millions of pores, or mouths at work, sucking in carbonic acid; and on a single oak tree, as many as seven millions of leaves have been counted.

tirely free from watery vapor, he would soon breathe out the fluids which fill up his tissues, and would dry up into a withered and ghastly mummy. It is because the simoom and other hot winds of the desert approach to this state of dryness, that they are so fatal to those who travel on the arid waste. Thus the moisture which the atmosphere contains is also essential to the maintenance of the present condition, both of animal and vegetable life.

Simple as the air appears, its scientific history as a whole is somewhat complicated. The adjustment of its several substances involves many interesting particulars, and the arrangements by which the constant presence of its essential constituents is secured, both in kind and quantity, are very numerous; yet we can not fail to perceive both a physical beauty, and a wise contrivance in them^m all.—*Chemistry of Life*.

"LET THERE BE LIGHT."

BY PROF. N. W. BENEDICT.

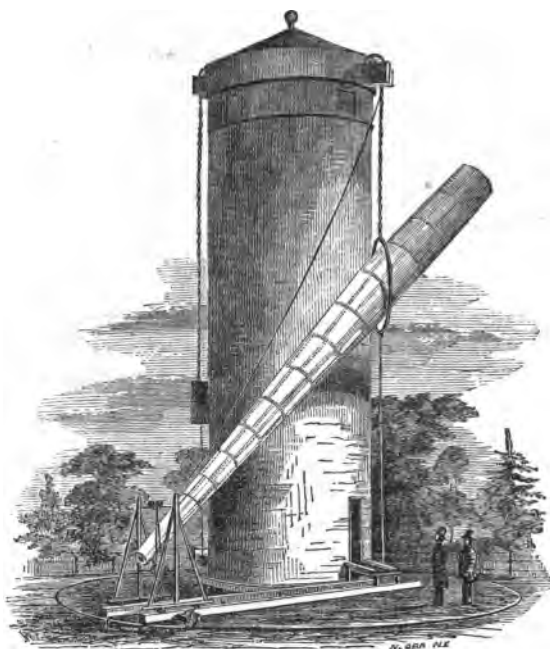
WHEN, from the plastic hand of God, the earth
 Sped on her destined round, and joyed to run
 Where skill divine had traced her annual course,
 Darkness that from eternity had sat,
 Sole despot, brooding on the dread abyss,
 Still stretched her throne of night o'er all the world.
 No ray of twinkling star, no blaze of sun,
 Nor modest smile of night-enchanted moon,
 Nor golden fleece of fiery floating cloud,
 Nor melting hue of rosy-fingered dawn
 (Flushed with bright hopes), the harbinger of day,
 Had told to angel's eye what worlds on worlds,
 With swiftest speed, their mighty cycles drew,
 Where primal orbs, attractive, led less spheres,
Themselves the while, drawn by *superior* force,
 Revolving round the greater solar orb
 That led the marshaled host in grand array
 And long procession round the throne of God.
 None but Jehovah's eye that makes as light
 The hidden deep and darkness palpable,
 Had caught a glimpse of glories soon to paint,
 With living light and splendors infinite,
 The canvas of the skies. Fair Earth still heaved
 Her bosom toward the sun's majestic orb,
 As if unerring instinct marked her way;
 And Ocean, roused by breath of Deity,

Awoke his thund'ring base and rose to meet,
With voice of all his floods, the passing moon;
But neither sun's majestic orb sent down
Prolific rays to vivify and warm,
Nor passing moon smiled at her serenade.
Blackness of darkness firm her empire held
And veiled resplendent glories in her pall.

Hark! from the throne that voice whose power creates,
At whose command the everlasting hills
Obeisance made and took their several seats,
Again is heard throughout the vast domain!
"LET THERE BE LIGHT." And, from the heaven of heavens,
Broad as the expanse of rolling worlds on high,
Deep as the unfathomed depth of worlds below,
Exhaustless as the source from which it sprang,
And swift as seraph's thought or lightning's wing,
Eternal day, a living flood, burst forth:
Suns in unnumbered millions drink the stream
And slake their great capacity for light,
Till all their mighty oceans overflow,
And roll th' enlight'ning tide on worlds around,
That, with reflective smile, their day light up,
And satellites their golden crescents fill.

High o'er the battlements of heaven appear,
With wond'ring gaze and new-awakened thought,
A countless throng, intent to view the worlds
Late whelmed in night, that now essay to clothe
Themselves in beauties of the Elysian fields.
And, while lamp after lamp, hung near or far,
With kindling ardor glows, and soon betrays
Its source of light and heat to be divine,
Cherub and seraph strike anew their harps,
And *hymn original* to God is sung.

But now the pure ethereal blaze sweeps o'er
The chords that bind create with Uncreate,
Softer than Æolus that woos the lyre
Whose melting strains the midnight hours enchant,
And gentler than the morning ray that waked
Memnonian music on the unseen keys.
The organ of Eternity resounds,
Its finger-board spread out for angel's skill,
With all its infinite variety
Of tone, from soft to loud, from high to low,
No note discordant heard, but all attuned
To harmony complete. From great to small,
From near to more remote, the morning stars
Their choral march lead on, and still they sing,
And sons of God together shout for joy,
And usher in the dawn of endless day.



THE CRAIG TELESCOPE.*

ON Wandsworth Common, near London, is mounted the largest refracting telescope in the world. It is called the "Craig Telescope," after the Rev. Mr. Craig, under whose directions and at whose expense it was constructed. The object-glass of this instrument is two feet in diameter, and the focal length seventy-six feet. The tube in which it is mounted is made of sheet-iron riveted together like a steam-boiler, and is thirteen feet in circumference at the largest part.

This telescope weighs about three tons. It is supported by a tower of brick sixty-four feet in height, and fifteen feet in diameter. The different floors of the tower are loaded so as to make it as steady as possible; and its entire weight is estimated at two hundred and twenty tons. The telescope is suspended at the side of

* We are indebted to the kindness of Mr. F. J. Huntington, of this city, for the engraving which so faithfully illustrates this article. It is one of the many valuable illustrations in Mattison's "High-School Astronomy."

the tower by a chain which runs over the top, with a weight attached at the other end to balance the instrument. From this weight a rope goes down to a small windlass, by which the telescope is raised or lowered at pleasure.

The top of the tower is made to revolve, and the end of the instrument containing the eye-glass is supported by a frame-work which rests upon a circular railway, at a distance of fifty-two feet from its center. By this arrangement the telescope has also a horizontal motion, around the tower, and may thus be directed toward any part of the heavens, from the horizon to within ten degrees of the zenith.

This noble telescope is superior to all others ever constructed, in its space-penetrating qualifications and powers of discovery. It resolves the Milky Way into regular constellations; and those nebulous spots which with Lord Rosse's telescope appear only as brilliant "star dust," are found by this to be perfect stars, in groups so far away that their light blends in one white mass ere it reaches our globe.

So distinctly do the mountains and rocks on the surface of the moon appear through it, that were there any large buildings, cities, or bodies of water upon that planet, they must be detected. But poor Luna still appears as seen through Lord Rosse's mammoth reflector, "like one great ruin of nature."

The glasses of this telescope are perfectly achromatic. Saturn exhibits itself through it with a milk-like whiteness; and we may expect some disclosures relative to its mysterious rings ere long. Doubtless the question will also be settled whether Venus has a satellite, or not; and we await with interesting anticipation many new discoveries by its aid, among the starry realms.

TURKISH TITLES.

MANY of the words now so frequently seen in the accounts of the war between Turkey and Russia, such as, "Sublime Porte, Sultan, Pashaw, Bey," etc., are often misunderstood. The following explanations may afford some light on their signification to many who read the news from the Old World.

Ottoman is derived from Othman, the name of the sultan who assumed the government of the Turkish empire about the year 1300

The word is applied to something that pertains to the Turks, or their government; as, Ottoman power, or Ottoman empire.

Sublime Porte is the official title of the Turkish government. It is not the title of any officer of the government, as many suppose it to be. The word was derived from the gate (*port*) of the sultan's palace—the sublime gate.

Sultan is the title commonly applied to the Ottoman emperor by Europeans. Sometimes he is called the Grand Sultan, or Grand Seignior. The word sultan is of Arabic origin, and signifies *mighty*. Various Mohammedan princes are also styled by this title, besides the Ottoman emperor. The title which the Turkish Sultan himself assumes is *Padishah*, which signifies a *protector*, or *throne prince*.

Pashaw, or *Pacha*, is the military governor of a Turkish province. According to the importance of his province he is distinguished by one, two, or three horse tails, carried before him. Every Pashaw is appointed and removed at the will of the Sultan. He has his own army in his province, distinct from the grand army of the emperor. A Pashaw with three horse tails has the power to punish with death.

Bey is a sub-governor, under the Pashaw. The Turks write this word *begh* or *beg*, but pronounce it *bay*. There are seven *Beys* in each province.

Divan is the Council of State of the Ottoman empire, consisting of the principal ministers of government. This word is also applied to their council chamber.

Cadi is a Turkish justice of the peace, or the judge of a town.

Reis Effendi (rees ef-fen-di), is the name given to the secretary of state, or high chancellor of the Turkish empire.

PUNCTILIOUSNESS.—At a literary dinner in London, where Thackeray and Angus B. Reach were *vis-à-vis* (viz'-a-vē) at the table, Thackeray, who had never before met this journalist and author, addressed him as Mr. *Reach*, pronouncing the name as its orthography would naturally indicate. "Re-ak, sir, Re-ak, if you please," said Mr. Reach, who is punctilious in having his name pronounced in two syllables, as if spelled Re-ak. Thackeray of course apologized and corrected his pronunciation; but, in the course of the dessert, he took occasion to hand a plate of fine peaches across the table, saying, in a tone which only he possesses, "Mr. Re-ak, will you take a Pe-ak?"

Youth's Department.

HENRY JEROME'S SOLILOQUY.

BY ELIZA A. CHASE.

THE morning was bright and beautiful, one of the first, soft, balmy days in spring. The snows had melted away; the distant forests were losing their purple hue and assuming a faint green tinge, and the air came stealing in so softly and wooingly, you would feel as if you wished to throw aside all care and toil, and roam over field and forest, just to enjoy the very luxury of existence. So thought Henry Jerome as he sat down under a budding tree on his way to school.

His home was in the suburbs of a large city, but the school-house to which he daily wended his way was in a busy street of the crowded town, and Henry, though much attached to his school, longed to escape from rattling pavements and brick walls to wander unrestrained in the inviting fields. In plain terms, he was strongly tempted to play truant.

"What is the use," said he to himself, "of shutting myself up in that old prison-house this warm, beautiful day? I can't study; I don't feel like it; and then, if my lessons are not learned, there will be a grand time. Mr. Grover will fix his eye on me and say, as usual, 'Master Jerome, I require a *perfect* lesson. Remember, you are forming a character.' Then I shall have to stay in till I know every word in that old musty book. I do believe Mr. Grover is always crosser and more particular on pleasant days than any other.

"Forming a character! I know what I would like to form—a boat after the model of that floating down the river. What a lucky thought! I've got a capital hook-and-line in my pocket, and I'll go fishing. But what shall I tell Mr. Grover and my father? Perhaps father will give me an excuse to-morrow. I can tell him I did not feel like going to school to-day. And I really am not well; my head feels dull, and I am so tired I don't believe I could stay in school all day. It is not right to expose one's health, and I think I'll stay out of school and go fishing."

Just as Henry came to this wise conclusion, a sudden gust of

wind blew a piece of newspaper toward him. "What is this?" said he, picking it up lazily, his duty to his health requiring him to make no exertion. It was only a piece of a daily paper, covered with "rewards" and "wants." He read on for a time listlessly.

"\$10 REWARD.—Lost, in Clinton Street, on the 16th, a small diamond breast-pin. The finder will receive the above reward, and the thanks of the owner, by returning it to 138 West Street."

"Now, if I could only find that pin, I could make ten dollars very easily. But let me see. Lost on the 16th, and this is the 28th. There is no chance for me."

"WANTED.—A number of smart, intelligent lads in a daguerreian room. Address, Artist, at this office."

"WANTED.—In a publishing house, an active and industrious lad, who understands something of book-keeping. None but steady, energetic, and intelligent lads need apply, for I want no idlers nor loungers about me.—E. B. WILLIAMS, 84 Ward Street."

"Well, that's a curious advertisement! 'I want no idlers or loungers about me.' I fancy I should not suit the gentleman if he were to catch me here and know how terribly I am tempted to go to the river and lounge. It is a little singular that all people want *active, intelligent, and industrious* persons in their employ. None seem to want loungers or idlers, though they do not all express themselves quite so frankly. Well, I don't blame people."

"Get up, you lazy fellow—what are you stopping for?" shouted a voice close by. Henry started, thinking himself the object addressed, but it was only a milkman speaking to his horse.

But so powerful was the effect upon his mind, that he resolved to give up fishing and go to school. He hurried along, feeling he had no time to lose if he wished to reach his place in season, and while still some distance from school, the slow, heavy chimes of a neighboring clock began to peal the momentous hour of nine.

"It is of no use," he said; and then the thought, "I want no idlers or loungers about me," came vividly before him. He ran at the top of his speed, and panting with the exertion reached his place just in time.

"Seest thou a man diligent in his business; he shall stand before kings; he shall not stand before mean men," commenced the teacher in his morning reading.

"That is for me," thought Henry.

Whether his courage failed him during the day we will not say, but he smiled when he read his copy, "Idleness is the parent of

sin and ignorance;" and never did the motto over the door, "Perseverance conquers all things," appear so distinct as on that day. The letters seemed to stare at him, and whenever he turned a long-ing glance toward the open window through which the tempting, tantalizing breeze was playing, they expanded till they hid every thing else from his view.

The bees never buzzed half so busily; an ant ran up and down the ceiling as if bewitched, and in a half-hidden corner a grim spider was most diligently employed in making repairs in his broken web.

"No idlers or loungers about me," said Henry; "well, I don't like to set myself up as an oddity."

It is an easy thing to form good habits; at least Henry Jerome found it so. His very great regard for duty to his health ceased to interfere with his attending school, and in a short time punctuality became pleasant to him.

After leaving school, some three or four years subsequent, he was seeking employment, when the self-same advertisement which had formerly arrested his attention again met his eye. He called immediately and applied for the situation.

"What testimony of your ability and punctual habits can you bring?" asked Mr. Williams, a kind but eccentric man.

"These, sir," replied Henry, laying several papers before him.

The gentleman adjusted his spectacles, and read at first with apparent indifference, but soon his interest seemed to increase. He glanced at Henry occasionally, ejaculating, "Ah!" "Indeed!" "Possible!"

"These papers," said he at length, "inform me that for the last four years you have been absent from school but three days, and then on account of illness; that you have never been tardy in attendance; that your lessons during that time have all been good; that your character is excellent, and you are especially prompt, diligent, and energetic.

"I am acquainted with Mr. Grover, and I know he would not give you these certificates unless you deserve them. I would rather have such a recommendation than references to all the influential men in the Union."

In five years from that time the advertisement again appeared:

"WANTED.—An active and intelligent lad who understands something of book-keeping. None but steady, energetic, and industrious persons need apply, as we want no idlers nor loungers about us.—WILLIAMS, JEROME & Co."

Microscopic Views.—No. 1.

A GLANCE AT THE CATERPILLAR AND WASP.

BY UNCLE GEORGE.

WELL, my young friends, I see you are punctual this bright afternoon, and by the little bottles, boxes, and hands full of flowers, and the bugs and vermin, I think you mean to improve the time, whatever it costs the poor insects."

"Yes, Uncle George, but *I* am not going to hurt my bugs, I am only going to destroy the one you want to examine, and I'll kill him carefully."

"That is right, Willie; what have you?"

"Oh, there are May-bugs, and flies, and wasps, and a fine old caterpillar that we were to find something about for Fanny to admire."

"Ugh, I should 'admire' to know what that could be; come, Cousin Willie, let him go, and look at my beautiful flowers."

"Ho, they are great flaunting things; we can see them *with our eyes*, 'way across the road."

"But the pollen, and the spiral tissues, and the globules of which they are composed, are wonderful and beautiful, and not so very large but the eyes would need some assistance."

"Willie laughs at my flowers; I suppose he means to see his crawling creatures without eyes. Well, I don't blame him, they look best so."

"If you please, Uncle George, we would like to see what can be found on Willie's worm to please Fanny, for it seems as if she had forgotten the spider."

"We will do so, Jennie, and since you are not of so weak nerves as she is, will you pass me a few hairs from the creature's back, with these tweezers? Very good. Now, Johnny, you are the

smallest—look in."

"Oh-h, the thorn-bushes, and they've no leaves on them, and there's a turtle on one of the trees!"

"Well done; let me see a turtle in a thorn-bush."

"So you can, Willie, and a *live* turtle, too."



HAIRS OF THE CATERPILLAR—MAGNIFIED.

"Turtles! I see lightning-rods with the points all the way down them; and there is something alive, sure enough. Why, Johnny, I thought you were dreaming."

"Johnny is as wide awake as any of us; but what can that be which he calls a turtle? Ah, I guess I know! the caterpillar's mother didn't comb his head before he went out."

"Yes, Fanny, you suggest the fact; that minute creature is a parasite that lives on the worm, as a louse lives on a dirty boy's head. He walks up those ragged spikes of Willie's lightning-rod as if he was quite bewildered. So much for the forest of thorn trees on the caterpillar's back, with the *game* that inhabits it. Now turn up the edge of the leaf to which he clings, and bring his foot carefully into the focus of the instrument. What have we there, Jennie?"

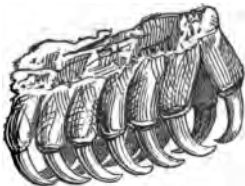
"Oh, how beautiful! a hundred golden hooks fastened to the leaf, and all as clear and transparent as shell-work. I am sure Fanny will admire *these*, if she has any doubts about the beauty of the tall, thorny hairs."

"Indeed I do! who could believe a hateful worm had such glorious claws, and such a multitude of them—a long, oval ring, lined all round with them. How he clings to the leaf, so that no wind could shake him off!"

"Willie, see if you can count the claws on one side of his foot."

"One, two, three—ten—twenty—thirty—forty-five."

"Well, with the opposite row, how many are there on one foot—Johnny, you needn't stop to count your fingers—twice forty-five?"



PART OF A CATERPILLAR'S FOOT,
MAGNIFIED 120 DIAMETERS.

"Ninety; and Jennie *guessed* a hundred."

"Now pass him along gently, and look at his forward foot."

"Why! he has but one large claw on his fore-foot; how lonesome it looks after the others! What do you suppose is the reason, Uncle George, for the difference?"

"I suppose the one strong claw on each side forward is more manageable than the many, to climb with, and is strong to drag himself up by; while the others give a better hold to fasten him to the leaf. This caterpillar, you see, has twenty feet, two single clawed, and eighteen with ninety claws each. How many claws, then, has the creature?"

"Sixteen hundred and twenty."

"Sixteen hundred and twenty-two!"

"Wrong, Willie. Right, Johnny. Now who is dreaming, my lad?"

"Oh, dear! I forget to *add* in his fore-legs, I was in such a hurry to get done first."

"*Sure* is better than quick, my good fellow, and sometimes it is quicker, you see."

"Yes, sir; I'll be careful next time, and not let little John get ahead of me."

"Johnny had the most legs, Willie, that's the way he beat you in the race."

"None of your mischief, Fanny. What shall we see next, Uncle George?"

"You may release your captive now. I have no dissecting knife fine enough to discover his internal arrangement, but the skillful Frenchman has done something here ready to our hands, by which we may see the arrangement of the worm's breathing apparatus."

"That! why, it looks wrinkled across like a goose's windpipe, and runs out into many branches, like the roots of a tree, the little ones branching off from the large ones, smaller and smaller, till I can hardly see them."

"And how does it seem to you, Jennie? Fanny's description is very just."

"I should call the central opening the throat of a large artery, and the veins seem to branch out, and run back with as many different lengths as there are veins; and every new branch is less than the one before it."

"You are both right, for, according to the naturalists, this arrangement serves for lungs and veins; or a kind of windpipe that branches out from the mouth, running back, and communicating with the surface along the sides of the worm. He has no blood, but respiration or breathing through these many tubes is to him what circulation of blood is to animals."

"Now, Willie, give your wasp a lamp-oil bath, and he will not suffer while we study him in piece-meal. There, that will do; you see he is dead instantly. I will now draw his sting with the tweezers. Without separating its sheath from the dagger, I will show it as you commonly see it."

"How enormous, and yet how smooth and perfect! The fine needle we once looked at was very rough and blunt, but this is perfectly polished, though it seems an inch thick."

"So you see, Jennie, how nature, the fine workmanship of God,

surpasses the most patient and skillful art of man. Look very closely, children, for I have been so fortunate as to discover a curious thing in connection with some wasp-stings."

"Oh, uncle, here it is now!"

"How do you know, Johnny? You are always finding something new."

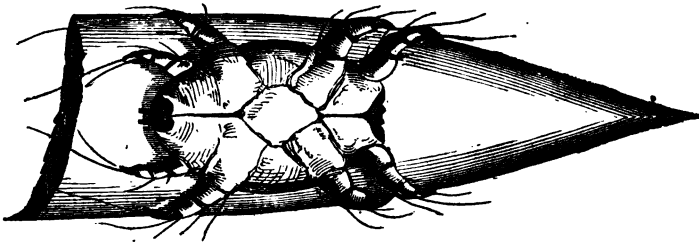
"Don't I know queer things? What should you call that, Willie?"

"I should call it an eight-legged pig, if there ever were such pigs."

"And I should call it a crab with his great claws gone, only for those long, oh, very long white hairs, that seem to be his toes run to nothing."

"So much for Fanny; and what for you, Jennie?"

"I should think one of Johnny's turtles had come from the thorn-woods; but it is not like that, either; it is an insect with eight legs; the legs having three joints before uniting with the body, and at every joint, and at the extremity of each leg, are long, fine threads. The whole breadth of the creature is less than that of the sting itself, near the end. I think that is all I notice that is peculiar."



A WASP'S STING MAGNIFIED, WITH THE PARASITE FOUND UPON IT.

"That is the curiosity of which I spoke, and which Johnny's black eyes were first to detect. I have never read or heard of such a parasite connected with the wasp. Perhaps, if I send a drawing of it to our friend, 'The Student,' some one can tell us whether it is in the books of the learned or not. I have found six at the roots of one sting, and though by no means universally found in the wasp, they are quite common, and are no doubt a cause or effect of disease in the insect they feed on. I have noticed them in the later part of the season more particularly.

"I will now show you the indescribably beautiful arrangement about the mouth of the wasp, after which we will do justice to your flowers, girls."



THE AMERICAN CUCKOO.

THIS bird is not abundant everywhere in America, yet it is found in the South, and as far north as the New England States, and in Canada. Like other birds, it spends its winters in warm climates. In mild winters it may be seen in Louisiana, but in colder seasons it goes farther south. It may be seen as far north as the State of New York in May, but in some of the most northern States it does not usually make its appearance until June.

The American Cuckoo is about the size of the common robin, though somewhat longer. On the upper portions of its body the color is a light greenish brown, and white on the under parts. Its food consists chiefly of insects, such as caterpillars and butterflies, yet it feeds on berries and grapes in their season. This bird, unlike the cuckoo of Europe, builds its nest and hatches its own young. Its nest is flat, and composed of a few dry sticks and grass, formed much like that of the common dove. It is often fastened to a horizontal branch of a tree within reach of man. The eggs are of a bright green color, and four or five in number.

The notes of this bird may be represented by *ko'-ko, ko'-ko*, repeated eight or ten times with increasing rapidity. In some parts of the country it is called the "cow-bird," probably from the resemblance of its notes to the sounds uttered by the farmer (*ko-ko-ko-ko-ko*) when calling the cows. Among the Dutch farmers of Pennsylvania it is known by the name of "Rain Crow."

The cuckoo is a cowardly and shy bird; and though it may frequently be heard in an orchard, it is seldom that one can obtain a sight of it. It flies silently, in a straight line from one branch or tree

to another. While you are looking carefully among the branches where you last heard it, its notes come from another direction, and before you can get a sight of it there, it suddenly darts away, and ko'-ko, ko'-ko, greets you from some other tree.

The English cuckoo is not found in this country. This bird does not build a nest for itself, but lays its eggs in the nests of other birds. It usually selects that of the hedge-sparrow for this purpose. When the sparrow has sat her usual time and hatched the young cuckoo, with her own offspring, the little cuckoo, though only two or three days old, will throw the young sparrow and the remaining eggs out of the nest, leaving only itself to be fed by the old sparrow. The reason of this singular course is unknown. The American cuckoo, though less cruel, has one bad habit, very much like some naughty boys. It robs the nests of small birds, and eats their eggs.

MY WILLOW TREE.

BY VESTA VIOLET.

"A thing of beauty is a thing o' joy forever."

I HAD a dear willow, that grew in our yard,
That claimed from me ever my warmest regard;
For when but a child from the little "brook side,"
Where the broad spreading tree grew up in its pride,
A schoolmate had whittled a branch off for me,
And told me to plant it, it would soon grow a tree.

But my childish heart asked, Oh! how can this be?
I never a branch on this *smooth* stick shall see;
Yet I brought it home, and selected with care
A damp, mellow place; I then planted it there;
Each day, came to watch it, when lo! slowly came
Green leaves bursting forth from that smooth willow cane.

I hailed them with joy; and as months fitted by,
All gracefully bending I branches did spy;
It became a nice tree, and year after year
It grew to my heart an object most dear;
The little birds warbled their songs there for me,
And oh! how I cherished that dear willow tree.

But, alas! my father—how could he thus wound?—
Purposely felled my dear tree to the ground,

And the only excuse for an act so unkind,
Was, the chickens a roost in its branches did find.
I could not but weep, though it weakness might be,
To see the sad fate of my dear willow tree.

Ye parents, who'd furnish a bright, happy home,
Do not let the spoiler thus wantonly come,
To thus sever the ties thy children hold dear,
And coldly refuse their love-pleadings to hear;
There is wealth in the home where each object to thee
Is sacred, if cherished, though it's naught but a tree.

DON'T SNEER.

ONE of the many good books for the young contains some excellent advice under this head. It should also be read by older people than those for whom it was written. The writer asks, "What is it to sneer?" and answers the question in the following language:

"It is to show contempt by turning up the nose, or by a particular kind of look or glance at a person you are displeased with. To insinuate things, in the use of unkind words. To make faces. To act scornfully. You can sneer with your lips, or with your eyes, or with your nose, or with your whole face, or with your feet; for there are sneering words, and sneering looks, and a sneering face. And when you turn on your heel and walk away with contempt, then you sneer with your feet.

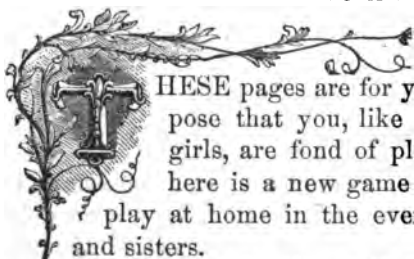
"Sneering never makes any one feel better. It feeds an evil temper in those who sneer, and those who are sneered at. In the breast of the sneerer it stirs up bad feelings that wrangle, and hiss, and sting, like a nest of vipers. And besides all this, it leaves ugly wrinkles on the face. You may try ever so hard to smooth your face over after turning up your nose, and pouting your lips, and making faces, but it won't do. It leaves a mark. You can hardly see it, to be sure, but by-and-by your constant cross looks will tell the story.

"And worse than the wrinkles on your face will be the wrinkles on your heart. They will give form and tone to all your conduct and conversation; for out of the heart proceeds all actions, as well as your thoughts and words. So that if you would keep your face and your heart smooth, avoid all sneering."—*Anonymous*.

Children's Department.

SHADOW BUFF.

A GAME.



THESE pages are for you, children, and we suppose that you, like all other good boys and girls, are fond of play as well as study. So here is a new game for you, which you can play at home in the evening with your brothers and sisters.

You must all be familiar with the old English game of Blind-Man's Buff. From that this new game, called "Shadow Buff," derived its name. It is much played on the continent of Europe, and to us seems better adapted for amusement in the family than the play so common in this country.

Shadow Buff is played in the following manner: A sheet or table-cloth is hung against the wall, on which the shadows are cast. In front of this, and some eight or ten feet from it, a lamp is placed upon a table. The light should be bright, so that when a person passes between it and the white surface against the wall, his shadow will show distinctly.

When all has been thus arranged, some one volunteers, or is chosen from the company, to be the "Buff." It is the duty of the Buff to sit on a low stool, four or five feet from the wall with his face toward it, and to watch for the shadow without turning his head in the least. As a penalty for violating this rule, he forfeits his right to participate in the game.

When Buff has taken his seat, the others, who join in the play, pass singly between him and the light upon the table, and he tries to name the one passing from his shadow. His mistakes in doing this are usually a cause of much merriment, especially when those who cast the shadows disguise themselves by an unnatural walk, by stooping, or by some

other motions. Thus the same person may pass several times without casting two shadows alike.

At length Buff guesses right, and the person who is recognized by his shadow now becomes the Buff, occupies the stool, and takes his turn at affording amusement for the others by his wrong guessing. Thus the game proceeds, each becoming Buff as his or her name is called while the shadow passes.

A STORY FOR LITTLE BOYS.

THERE are a great many good boys, and we are sorry to say, many bad ones too. We wish all boys were good ones, then we should have no stories to tell about bad ones. This time we are going to tell you of two boys, one good and the other bad. They both lived in the State of Ohio. Perhaps some of our young readers may know them.

Charles was the name of the good boy. He was an only son. He was always obedient to his parents, and kind to his little sister.

One day his mother gave him two apples to take with him to school. He was a kind and generous lad, and on meeting Henry, another boy whom he knew, he politely offered him one of his apples. This boy did not like to go to school or to read good books. He was very rude, and took the apple without thanking Charles for it. And, what was still worse, he knocked the other apple out of his hand into the mud.

This was a very unkind act; and what do you think Charles did? What would you do if any one should treat you so? We will tell you what this good boy did. He was quite small, and younger than the naughty boy, yet he did not cry nor lose his temper, but stood up calmly and bravely, looking him in the face, and said, kindly, "I think your mother never taught you the Golden Rule."

Henry thought he would make Charles angry, and get him to fight, but he was quite mistaken. He thought it strange that a little boy should talk as Charles did, and he turned and asked him what he meant by the Golden Rule.

Charles told him that it was, "Do to others as you would have them do to you." On hearing this he looked ashamed and went away; and we hope he has since become a better boy. Perhaps that was the first time he had ever heard of the Golden Rule. As Charles went on to school he must have felt happy that he had acted so bravely and wisely.

Now, little boys, what do you think of Charles? Don't you think he was a braver boy than if he had become angry, and gone to fighting? Now I want to ask you once more, what would you have done had you been treated as little Charles was? Would you have said, "I won't stand it," "I'll pay him back?" This would not have been "doing good for evil."

 ADVICE IN RHYMES.

My little girl, be always kind,
 And cultivate a willing mind;
 Be ready, by a word or smile,
 The sad or weary to beguile;
 And by your acts of love, to give
 Pleasure to all with whom you live;
 Be kind, then you will be polite,
 Your manner simple, graceful, right.

My little girl, be soft and mild;
 Oh, be a gentle, docile child!
 Raise not your voice to friend or foe,
 But let your tones be sweet and low.
 Be truthful, open, and sincere,
 Be independent without fear;
 And if you know that you are right,
 Shrink not from ridicule or slight.

Be simple in your taste for dress,
 But clothe your soul in loveliness.
 Be meek; oh, it is sweet to be
 Appareled in humility.
 The faults of others do not seek,
 And of them do not speak;
 But daily search for all your own,
 And strive to banish every one.

—*Fresh Flowers for Children.*

HOW BROAD IS SUNDAY?

ONE day a little boy asked permission to play with some of his toys. "No, my dear, it is Sunday," replied his mother.

"Is it Sunday up at Mr. Arthur's?" asked the child.

"Yes, my son," answered his kind mother.

"Is it Sunday down at Mr. Mason's, too?" he inquired.

"Yes, my child."

"Is it Sunday everywhere?" asked the little fellow.

"Yes, my dear, it is Sunday in the house, in the street, in the country, in the city, and everywhere."

Do all our little friends know how broad Sunday is? Do not some of you forget that it is Sunday where you are?

One day little Ellen went to her room, took out her doll and made a new dress for it, and spread her tea-cups and saucers on a table before it. Did she think it was Sunday there?

The other day, Robert and some other boys stole away into the field and had a game of ball. The church steeple was out of sight, and they could not see the people on their way to meeting; but was that retired nook beyond the limits of the Sabbath?

The Sabbath is as broad as the earth—it comes everywhere. Will you not remember that it is God's day? You may retire where no human eye can see you profane it, yet no spot is so secluded, no darkness is so deep, that the eye of God can not see your conduct.

BE TIDY.—"Now, my son, be tidy; fold up your nightgown *again*; I *must* have it done *neatly*." Such were the words addressed by a kind mother to her little boy. Years have passed since that time, and that little boy has grown up to be a man. A friend said to him one day, "How is it that you can get through so much work as you do?"

"By method, method! I am now reaping the fruits of my mother's lesson—'BE TIDY,' " was his reply.

Editor's Table.

OUR OBJECT.

"Scatter diligently, in susceptible minds,
The germs of the good and beautiful,
They will develop there to trees, bud, bloom,
And bear the golden fruit of paradise."

WE have a higher object in sending you this magazine than merely to obtain the price of its subscription, for in return we hope to render you more than a four-fold equivalent, in instruction for your family, or in pleasure and profit to yourselves. For all whose characters and habits are forming, whose principles of truth and virtue are to be established, whose minds are to be developed, is *THE STUDENT* prepared. It bears instruction for the little learner, for youth, and also for all who seek to satisfy a thirst for knowledge. It whispers many encouraging words for the youth battling with the adversities of life, and urges them onward with noble aspirations for something higher and purer.

To be valuable as it is useful, and interesting or amusing that it may be instructing, is the aim of this work. It comes to you, not merely laden with something to beguile the passing hour, then leaving you without a new idea, or a useful thought, or fact as a memento of its passing; but with a higher object—to instruct. Reader, whoever you may be, you have an interest in this work; for he that attends to his interior self, that has a heart and keeps it, a mind that hungers and supplies it; who seeks a useful, not a worthless life, will find encouragement and assistance here.

COURTESY OF THE PRESS.—We are under many obligations to our brother editors, in the country particularly, for the very kind and cordial manner with which they have welcomed *The Student*, not only giving it monthly notices, but in many instances publishing our prospectus entire. We wish all of the latter class to send us marked copies of their papers, that we may not fail to notice their favors, and in addition to sending them the monthly numbers, we shall be happy to forward each a bound volume of *The Student* at the close of the year.

PLAIN DIET FOR CHILDREN.—Old Dr. Humphrey has uttered many valuable truths in his quaint style, and not a few in plainer language. Among the latter are the following important thoughts for parents:—"Plain diet is what children ought, on every account, to be accustomed to from the first. It is vastly more necessary for their present health and comfort than the nice little things with which fond parents are so apt to vitiate their appetites, and it will save them a great deal of mortification in after life."

"If you make it a point to give them the best of every thing, to pamper them with rich cakes, sweetmeats, and sugar plums: if you allow them to say with a scowl, 'I don't like this,' or 'can't eat that,' and then go away and make them

a little toast, or kill a chicken for their dainty palates, depend upon it you are doing them a great injury, not only on the score of denying them a full muscle and rosy cheek, but of forming one of the most inconvenient habits that they can carry along with them in after life. When they come to leave you, they will not half the time find any thing they can eat; and thus you will prepare them to go chafing and grumbling through life, the veriest slaves almost in the world."

HINTS FOR PARENTS.—"Never allow a child to be uncourteous and disrespectful, in language or behavior, to yourself or others. Cultivate the affections with greater care than you would nurse a house plant; they afford more pleasure in the domestic circle, and their frailty demands your utmost attention. Allow no influences in your family but those that are gentle and kind. Lay it down as a rule, *never* to smile, nor in any way show approval or merriment, at any trait in a child which you would not wish to grow with his growth, and strengthen with his strength."

EDUCATIONAL DOCUMENTS.—We should be happy to receive from principals of schools, and from officers of educational institutions, conventions, meetings, etc., reports, addresses, statistics, and catalogues from all sections of the country. If addressed to "The Student, New York," they will reach us.

Our Museum.

SINCE some will examine *Our Museum* for the first time, in this number, we now state briefly its character and object. It is designed to be the editor's repository for curiosities in literature, gems of thought, valuable facts in science, art, philosophy, and history, scraps from antiquarian researches, origin of words and sayings, anecdotes, questions from correspondents, with their answers, enigmas, puzzles, etc., etc. All our readers are invited to aid us in making this interesting, by sending contributions for it.

MAY is the fifth month of our year, but the third of the Roman, whose year began in March. Its name is supposed to be derived from *Maia*, the mother of Mercury, to whom the Romans offered sacrifices on the first day of this month.

LANGUAGES AND ALPHABETS.—Originally all men spoke the same language, yet there are now no less than 3,664 languages and dialects used in the world. But comparatively few of these, however, have ever been reduced to a written language. Several of the written languages employ the same alphabet, yet even these do not all use the same number of letters. The principal written languages, together with the number of letters in their several alphabets, are comprised of the following lists: The English Alphabet has 26 letters; the French, 25; Italian, 20; Spanish, 27; German, 26; Slavonic, 27; Russian, 41; Latin, 22; Greek, 24; Hebrew, 22; Arabic, 28; Persian, 32; Turkish, 33; Sanscrit, 50; Chinese, 214.

AGRARIAN LAW.—This law was enacted by the Romans, 182 years before Christ. It decreed an equal distribution of the public lands among all the citizens, and prohibited any person from owning more than a certain number of acres. It made the rich poor, and at last proved fatal to the freedom of Rome.

PUNCH says the Emperor Nicholas wishes a correction made in the next edition of our Dictionaries; for he has discovered that an *Ottoman* is not a thing upon which you can comfortably rest your foot.

MATRIMONIAL PUN.—A clergyman, soon after uniting in marriage a couple whose Christian names were Benjamin and Ann, was asked by a friend how they appeared during the ceremony. He readily replied: "They appeared both *annie-mated* and *bennie-fitted*."

A CURIOSITY.—The following curious sentence is said to have been taken from a volume of sermons published during the reign of James I. of England: "This *dial* shows that we must *die all*; yet notwithstanding, *all houses* are turned into *ale houses*, our *cares* into *cates*, our *paradise* into *pair o'dice*, *matrimony* into *matter of money*, and *marriage* into *merry age*, our *divines* into *dry vines*: it was not so in the days of *Noah*—O, no!"

LOAFERS.—Some one has attempted to classify the *loafers* of different nations by the manner in which they spend their time. The following is the result: The Italian loafer spends his time in sleeping; the Turkish loafer in dreaming; the Hungarian loafer in smoking; the German loafer in drinking; the Russian loafer in gambling; the French loafer in laughing; the English loafer in swearing; and the American loafer in whittling and talking politics. Unfortunately some of the American cities have a collection of loafers which comprise all these classes.

CURIOS TITLE.—A book was printed during the time of Cromwell, with the following title: "Eggs of Charity, layed by the Chickens of the Covenants, and boiled with the Water of Divine Love—Take ye and eat."

CANES.—Walking sticks were first introduced into fashion by the effeminate Henry II. of France, but did not become a requisite appendage to the gentlemen of fashion in England till the year 1662. Ingenuity, which in matters of fashion is ever on the alert, soon crowned it with the addition of the round and hollow top, which sometimes contained nutmeg or ginger, to warm the stomach of the valetudinarian, and sometimes sugar-candy for the asthmatic. Soon afterward snuff came into universal use among the *bon ton* of society, and the cavity was exclusively appropriated to its reception. Then the meeting of two friends was invariably marked, after the first salutation, by the unscrewing of the tops of their walking-sticks.

LAMPS were used by the ancients; candles are an invention of the middle ages. At first, wicks were made of papyrus, hemp, and the pith of rushes.

EPIGRAM.—In an old book, published in 1660, is found the following epigram. Any one will appreciate it by remembering that the Latin word *amor* means love.

ON ROME.

"Hate and debate Rome through the world hath spread;
Yet Roma *amor* is, if backward read;
Then is it strange Rome should foster hate? no,
For out of backward love all hate doth grow."

A PUZZLE, from J. C. B., of O. Arrange the following letters into a sentence.

E M E H R A R N H Y F T O T
E B T E O E S Y H
R M R Y C T I T D A O H Y U

Items and Events.

INDIGO PLANT.—This shrub, from which indigo is made, is found in warm climates in Asia, Africa, and America. It grows spontaneously when once rooted. A single plant spreads with such rapidity that in a few years it will cover several acres.

TOBACCO.—One hundred and forty million dollars' worth of tobacco was consumed by Great Britain last year; enough to keep a million of boys at a good school for twelve months. Over one thousand tons of tobacco are annually used for chewing.

It is said that a book has been published in England, by Dr. Stowell, in which he undertakes to prove that "the forbidden fruit was the tobacco plant."

CHARLES F. HOFFMAN, the American author and poet, is now an inmate of the Pennsylvania State Lunatic Asylum, near Harrisburg, Pa.

EGYPT.—Monsieur Mariette, a French Savan, it is said, has recently discovered a secret entrance into the Egyptian Sphinx.

SOLAR ECLIPSE.—On Friday afternoon, the 28th of May, there will be an eclipse of the sun, of an unusual magnitude. It will be an annular eclipse in the eastern part of Upper Canada, through the northern portion of the State of New York, in nearly all of Vermont and New Hampshire; in the north-eastern corner of Massachusetts, and south-western part of Maine. It will appear as a very large partial eclipse throughout North America. After this it will be four years before another eclipse of the sun will occur in this country that will attract much attention.

NEBRASKA.—This is a large territory, chiefly inhabited by Indians, lying between the Missouri River and the Rocky Mountains. It extends from the Indian Territory and Texas on the south, to the British Possessions on the north; and contains about 136,600 square miles, or as many acres as all the New England States, New York, New Jersey, Delaware, and Maryland combined. During the past three months the country has been greatly excited, on account of a bill before Congress, proposing to repeal the Missouri Compromise, and permit slaves to be owned in the Nebraska Territory.

WAR IN EUROPE.—Preparations are still in progress for the war between Turkey and Russia. England and France have joined with Turkey in resisting the aggressions of Russia.

STATE SUPERINTENDENTS OF COMMON SCHOOLS.—Victor M. Rice, formerly City Superintendent of Common Schools in Buffalo, New York, has been elected Superintendent of Common Schools for the State of New York.

N. W. Edwards of Springfield, Ill., has recently been appointed Superintendent of Common Schools for the State of Illinois.

H. H. Barney has recently entered upon the duties of this office in the State of Ohio.

In the State of Michigan this office is filled by Francis W. Shearman; in Minnesota, by E. W. Merrill; in Wisconsin, by H. H. Wright; in Iowa, by Thomas H. Benton, jr.; in Connecticut, by Hon. Henry Barnard; in Massachusetts, by Dr. B. Sears.

We should be glad to give the names of those filling this office in other States but have not the means at hand for doing so.

Literary Notices.

BOOKS noticed in **THE STUDENT** may be obtained by persons residing in any part of the United States, at their own post-office, free of postage, by inclosing the price here given, in a letter, post-paid, and directing it to N. A. CALKINS, 348 Broadway, New York.

MINNIE HERMON; Or, the Night and its Morning. A Tale for the Times. By Thurlow W. Brown. Published by Miller, Orton, & Mulligan, Auburn and Buffalo. J. C. Derby, New York. 12mo; 472 pages; 4 illustrations; muslin.

Mr. Brown is widely known as an interesting and vigorous writer; and in the work before us he has furnished a thrilling temperance tale, the scenes of which are drawn from life. Perhaps, reader, you have been surfeited with thread-bare narratives of the evils of intemperance; even if such be the case, just lay aside your prejudices long enough to read ten pages in "Minnie Hermon," and you will hardly lay aside the book until you have finished it. Every chapter carries to the conscience and heart of its readers convictions that fill them with earnest and eloquent appeals against the desolating tide of intemperance. Price by mail, \$1 80.

ELEMENTARY GEOLOGY. By Edward Hitchcock, D. D., LL.D. The Twenty-fifth Edition, Revised, Enlarged, and Adapted to the Present Advanced State of the Science. Published by Ivison and Phinney, New York. 12mo; 418 pages; Illustrated with three charts, and more than 200 engravings. Leather back and muslin sides.

As an Elementary Geology, we know of no work containing as much of this science as the one now before us. It is comprehensive and full, treating, among other subjects, the constitution and structure of the earth, classification of rocks, description and origin of the various strata, the agencies in geological changes, history of Geology, and the relation between this science and natural and revealed religion. It would be superfluous for us to recommend a work which is highly commended by Professors Silliman, Rogers, Buckland, and many other scientific gentlemen of eminence. It has already reached its twenty-fifth edition, and contains the results of all recent discoveries in this science. Price by mail, \$1 80.

THE WORLD'S LACONICS; Or, the Best Thoughts of the Best Authors. In Prose and Poetry. By Everard Berkeley. Published by M. W. Dodd, New York. 12mo; 432 pages. Muslin.

— There, that's it, just what the title says: "the best thoughts of the best authors;" and we could hardly tell you more were we to write a page. But its great utility and con-

venience consists in the fact that these thoughts are upon almost every sentiment and subject that occupies the mind of man, and they are arranged alphabetically, so as to be easily found. For instance, we just now chanced to open to the letter L, and the word *Learning* was on the page before us; following it were brief extracts from Pope, Shenstone, Milton, Johnson, Sigourney, Locke, and several others, containing the gems of their thoughts on this subject. Price by mail, \$1 80.

THE CHEMISTRY OF COMMON LIFE. By James F. W. Johnston, M. A., F. R. S., etc. Illustrated with numerous engravings. It is published in numbers, 12mo., paper covers, of about 80 pages each; by D. Appleton & Co., 346 and 348 Broadway, New York.

Number one, containing "*The Air we Breathe, The Water we Drink, The Soil we Cultivate, and The Plant we Rear,*" is now ready. We can give no better idea of the style and interest of this valuable work than by referring our readers to an extract from it on page 8 of the present number. It should be read by the million.

We will forward the numbers by mail, post-age pre-paid, for 80 cents each.

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This work is by the popular author of "Summerfield, or Life on a Farm," and "The Master Builder, or Life at a Trade;" who has gained a reputation for his delineations of the scenes of actual every-day life. The tale of "Life at the Loom" opens in the town of Salem, Massachusetts, and the heroine tells her own story, in which she unfolds a knowledge of the mode of life and labors of a New England factory village. Price by mail, \$1 18.

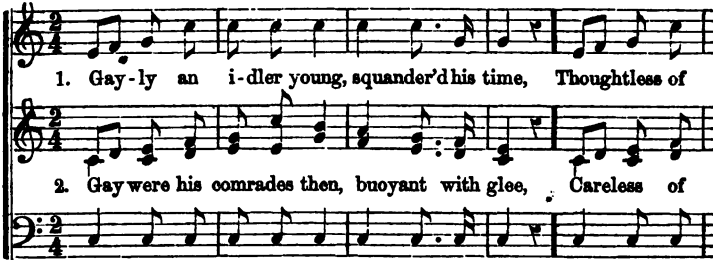
THE STAR IN THE DESERT. By the author of "A Trap to Catch a Sunbeam," etc., etc. Published by James Munroe and Co., Boston and Cambridge. 18mo; 70 pages.

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MIND MAKES THE MAN.

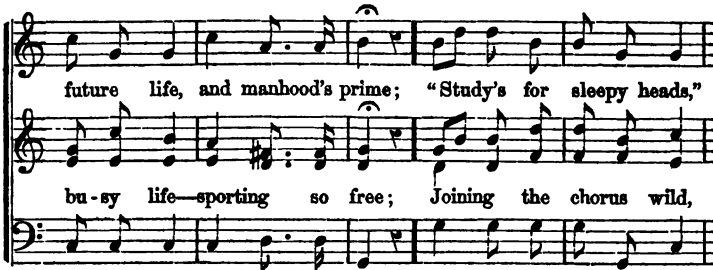
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Music by E. C. HOWE, M. D.



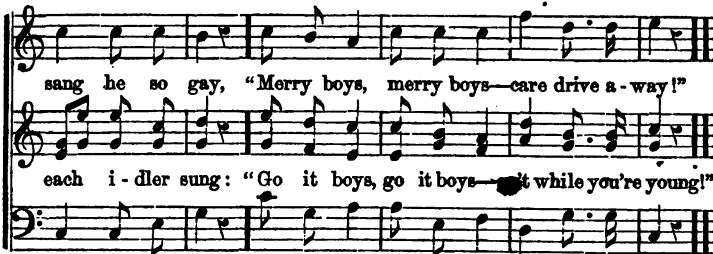
1. Gay-ly an i-dler young, squander'd his time, Thoughtless of

2. Gay were his comrades then, buoyant with glee, Careless of



future life, and manhood's prime; "Study's for sleepy heads,"

bu-sy life-sporting so free; Joining the chorus wild,



sang he so gay, "Merry boys, merry boys—care drive a-way!"

each i-dler sung: "Go it boys, go it boys—~~it~~ while you're young!"

3. Wildly from prison grates, notes of despair
Came from a felon's cell—the idler was there,
Shrieking in hollow tones this warning bold:
"Sloth's a curse; sloth's a curse; curse to the world."

4. Hark ye! a song is heard, notes full of joy,
Calling each wayward one, time to employ;
"Up and be doing, boys, learn while you can;
Study, boys, study, boys,—*mind makes the man.*"

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Volume IX. commences with May, 1854.

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VOL. IX.

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JUNE, 1854.

No. 2.

THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

N. A. Calkins, EDITOR.



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Office of The Student, Room No. 10, Appleton's Buildings, 348 Broadway, New York.

TO CORRESPONDENTS.

IN our notices to Correspondents we do not wish it to be understood that all we say, when speaking of any one contribution, refers expressly and entirely to the writer of that; for different articles often suggest to us thoughts which may be useful to others, and would be equally applicable to utter in connection with notices of other articles. We should prefer that each contributor should read all the notices, and apply all to himself which he may deem thus applicable.

J. W. L., of Ct.—We intend to publish your communication as soon as we find it convenient to make a few alterations.

L. A. W., of N. H.—We do not deem those pieces of poetry suitable for our magazine. Every body writes on such subjects, and your lines contain nothing new in style or thought.

J. E. S., of N. C.—Will you favor us with a prose article? We prefer it to poetry, unless the poetry is of more than ordinary merit.

O. P. A., of Vt.—The style of your writing is labored, and shows that fact too prominently. We may use it with some changes, if, on a second reading, it appears better.

A. C.—Unless you have much experience in writing, do not send us essays on "Friendship," "Temperance," "Education," "Ambition," "Happiness," "Contentment," or any similar subject. If we choose to publish articles on these subjects, we can find an abundance written by able and experienced writers. One reason why so many young writers fail to write any thing interesting is because they attempt to write about abstract subjects, instead of realities. Hundreds might succeed, who now fail to write any thing worth publishing, would they draw their inspirations from nature, and tell us what may be seen and learned in the world around us.

J. C. B., of O.—Your "Warnings from the Tippling Bowl," "Contentment is Great Gain," have been thrown under the table.

E. H. P., of Pa.—Your articles are companions for those of J. C. B.

ADA L., Ind.—"The Brown Martin" is rather simple and pretty, and we shall publish it, and send you *The Student*.

E. R. C., of Ga.—May we not hear from you again, with other articles, and your name and address?

J. B. S., of O.—There are some interesting facts in your , and we shall probably use a portion of it with changes.

BUSINESS NOTICES.

Please Read.

NOTICE TO OLD SUBSCRIBERS.—With the number for May we sent a notice to all those whose term of subscription expired with April, requesting them to forward their subscriptions, or, if they wished the work discontinued, to inform us immediately by letter. We have been pleased with the prompt manner in which this notice has been responded to by forwarding the amount for a renewal of subscription, also in informing us when circumstances made it necessary to discontinue it. But there are a few from whom we have not yet heard, and we hope, on the receipt of this number, they will at once comply with our request. Those who do not inform us otherwise during this month, we shall consider subscribers for the coming year, and send the magazine accordingly.

CLUBS.—Those renewing subscriptions for *The Student*, may do so at our club rates, as published in the prospectus for May. Now is an excellent time to subscribe, being the commencement of a new volume. Clubs should be formed immediately in every school district.

REMITTANCES, in payment for *The Student*, may be made in bank notes on any specie-paying bank in the United States or Canada. Fractions of a dollar may be forwarded in postage stamps. If properly inclosed, and mailed in presence of the postmaster, money may be sent at our risk. Sums of more than twenty dollars should be sent in drafts, made payable in New York to our order.

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ANDREW JACKSON DOWNING.

THE parents of ANDREW JACKSON DOWNING were natives of Lexington, Massachusetts, but they removed to Newburgh, Orange County, New York, soon after their marriage. His father had begun life as a wheelwright, but abandoned the trade to become a nurseryman. Andrew, the youngest of five children, was born October 30, 1815. The first years of his life were passed in the midst of one of the loveliest of landscapes. The cottage where he was born overlooked the broad bay which the Hudson River makes

before winding in a narrow stream through the Highlands of West Point. Across the river rose the Fishkill Mountains, stretching away to the north into gently sloping hills. Around him were the carefully trained trees and beautifully variegated flowers, whose odors were wafted on the balmy breezes. Such influences must have contributed to mold his character and tastes, and fill his mind with images of rural beauty.

When Andrew was but seven years of age his father died, and his elder brother assumed the management of the nursery. Those who remember Andrew at this time speak of him as a thoughtful, reserved boy. The gravity of maturity came early upon him. He early manifested a fondness for botany, mineralogy, and other natural sciences. He spent several years at the Montgomery Academy, in his native county, from which he finally returned home at the age of sixteen. His mother now desired him to become a clerk in a dry goods store, but his own fine taste and exquisite appreciation of natural beauty, his love of natural forms and the phenomena of life, determined him to choose some other vocation. Accordingly he decided to remain with his elder brother, who succeeded his father in the nursery garden.

About this time Baron de Liderer, the Austrian consul-general, who had a summer retreat in Newburgh, discovered young Downing's love of the natural sciences, and his taste for the beautiful in nature. The two—although the baron was an old man—soon became hearty friends, and companions during many excursions for the scientific explorations of the surrounding country. This intercourse with a gentleman of large intellectual attainments, and of eminent purity of mind, and refinement of manners, was of great service in the development of Andrew's mind and the formation of his character. His sensibility to artistic beauty was cultivated by associating with the lamented Raphael Hoyle, an English artist, at that time also residing in Newburgh. Through these gentlemen he made the acquaintance and became familiar with several families of refinement and distinction. These associations, no doubt, did much to strengthen his refined and generous nature. This portion of his life was marked by a combined application to work and study, and notwithstanding little record is left of these years, yet their influence may be seen through all his after life and labors.

When about twenty-one years of age he began to visit the beautiful residences upon the banks of the Hudson, to extend his experience and confirm his theories of art in landscape-gardening. During

these visits he was received cordially as a gentleman and a scholar, seeking to improve the tastes of those whom he met. He sketched, he measured, observed, and recorded his observations. These travels were usually brief, and strictly aimed at improvement in his calling, and he returned from them richly laden.

In the new and boundless country around him, with its variety of climate and soil, Downing saw an opportunity for achieving a new triumph of art. From the chaos of mountain, lake, river, and forest he resolved to develop its resources of beauty for the admiration and benefit of its people. To lay out one garden well, in conformity with the surrounding landscape, in obedience to the truest taste, and to make man's home, and its grounds, as genuine works of art as any picture or statue that the owner had brought over the sea, was, in his mind, the first step toward the great result.

In June, 1838, Andrew J. Downing, then in his twenty-third year, was married to Caroline, the eldest daughter of J. P. De Wint, Esq. At this time he dissolved the business connection with his elder brother, and continued the nursery by himself. There were other changes also; the busy mother of his childhood was busy no longer; she had now been for several years an invalid, unable even to walk in the garden. Her sons were men now, and her daughter a woman. The necessity for her own exertion was passed, and her hold upon life gradually loosened, until she died in 1839.

Downing may now be said to have entered upon the career of his life. Very properly his first work was his own house, built in the garden of his father, a few rods only from the cottage where he was born. It was a simple house in the Elizabethan style; it was very simple, but very elegant, and was spacious, convenient, and gracefully proportioned. Wherever the eye fell, it detected that a wiser hand had been before it. All the forms and colors, style of furniture, pictures, and carpets, were harmonious, yet there was no rigid monotony.

His favorite art was landscape-gardening, and he prepared a book upon this subject, which was published in 1841. This work soon became popular both in England and America. Dr. Lindley said of him: "No English landscape gardener has written so clearly, or with so much real intensity." During the following year he published "Cottage Residences," in which the principles of the first volume were applied in detail. This work also met with a hearty welcome, both within our own country and in England. European honors soon began to reach the young American gardener upon the banks of

the Hudson. Queen Anne, of Denmark, sent him a "magnificent ring," in acknowledgment for the pleasure she had derived from his works. But ere long a sweeter praise saluted him, though most frequently silent; it was the gradual improvement of the national rural taste, developed through the instrumentality of his writings. To no other man is our country so richly indebted for its achievements of landscape beauty, rural architecture, and ornamental gardening. In 1845, his third work was published—"The Fruit and Fruit Trees of America." In seven years this book reached its fourteenth edition, though a volume of six hundred pages.

In his own home Downing was much beloved, and his society was courted by the intelligent and refined. He was a true American. Within his house it was easy to understand that *the home* was so much the subject of his thought. Why did he wish that the landscape should be lovely, and the houses graceful and beautiful, and the fruit fine, and the flowers perfect? Because these were all dependencies and ornaments of home, and home was the sanctuary of the highest human affection—home was the pivot upon which turned all his theories of rural art. His own home was his finest work; it was materially beautiful, and spiritually bright with the purest lights of affection; its hospitality was gracious and graceful.

In August, 1846, "The Horticulturist" was commenced by Mr. Luther Tucker, of Albany, and Mr. Downing became its editor, which position he retained with much honor to the time of his death. Mr. Downing visited England and France, besides many portions of our own country. In addition to the works already mentioned, he wrote "The Architecture of Country Houses; including Designs for Cottages, Farm-houses, and Villas."

The year 1852 opened upon Downing in the garden where he had played and dreamed alone in boyhood; he was just past his thirty-sixth birthday; and now behold that self-same person who, when a boy, returned from the Academy where he had exhibited but few signs of his power; see him in the bloom of manhood, honored at home and abroad, employed by the government of his country to improve and decorate the public grounds at her capital; and one whose services were sought from various parts of the country. From whence sprung all this honor? It had been achieved in that garden which was still his attractive home.

The worth of such men is vastly greater than that of military chieftains, and we would that all might learn to honor those who make our homes delightful and attractive in proportion, as their con-

tributions to our comfort and happiness is more desirable than those of military heroes who desolate firesides and fill hearts with sorrow and mourning. Our readers are probably already aware of the sad occurrence which terminated the useful life of Mr. Downing. He took passage for New York on the 28th day of July, 1852, on board the ill-fated "Henry Clay;" the steamboat was destroyed by fire, and, with a multitude of others, he was lost—to his wife, and loving friends, and to his country.

THE OLD SCHOOL-ROOM.

BY A. E. H.

I LOVE it, I love it, and dark be my doom,
 If I cease to cherish the old school-room;
 I prize the friends that have met me there—
 Each urchin gay, each maiden fair—
 They are bound by a thousand bands to my heart,
 Not a tie will break, not a link will start.
 Would ye know the spell? I'd not be a fool,
 But would seek to grow wiser and better at school.

'Neath an humble roof, with my satchel and books,
 I greet my teacher with kindly looks,
 And I'm welcomed with pleasant words and cheer,
 That fall like music upon the ear:
 Do my tasks seem hard, I will softly glide
 With my many cares to my teacher's side,
 Who ever kindly dispels the gloom
 By her manner mild, in the old school-room.

I shall never forget till life's latest day,
 Though my eyes grow dim, my locks grow gray,
 How pleased was I as my way I bent
 To be a school-girl, my first attempt;
 But my heart is sad when I think how fast
 Are speeding those days, too pleasant to last,
 That are bearing me to the days of doom
 When *forever* I leave the old school-room.

Whate'er my fate, gay or somber, yet
 The school-room's joy I shall never forget.
 Say it is folly, and call me weak,
 While the scalding tears flow down my cheek;
 But my soul is wrapped in a mantle of gloom
 When I think of leaving the old school-room.

WHERE WAS HIS HOME?

WHILE returning from the labors of the day, a few evenings since, I was attracted by a group of lads gathered upon the walk. On looking for the object of interest that had drawn them together, I found it was a youth, not more than fifteen or sixteen years old, *drunk*! Ah, how the pitiful spectacle chilled my very blood and sent a shudder through my whole frame! There he stood, crouching in the midst of the crowd, muttering incoherently, or giving vent to a volley of profane vulgarity; his eyes bleared and heavy, his countenance excited and inflamed, his step weak and unsteady, his whole demeanor abject, degrading, and disgusting. I but looked upon him, thus early wrecked upon the sea to which he had consigned himself, and passed on.

I could but think of him, however, and from him my mind wandered to his home. Where was it? Watched there the mother for his coming, waiting to welcome him with motherly tenderness and love? Had he sisters who waited his return to make the circle of home complete? And brothers full of the anticipation of stories and games when he should join their circle? And a father, who hoped in pride to address him—"My son?" Oh, if these he had, how wearily will wear the hours away before he shall return; and then what a blight upon the love, the hope, the pride that had there concentrated upon that poor, ruined object.

Perhaps, again, "he was the only son of his mother, and she a widow," who had carefully trained him to be her support and comfort in future years; and she may have long known that her labors have been in vain; that idle habits and vicious society have corrupted her son; and now with heavy, aching heart she may be waiting his return, knowing that it will bring only a loathsome object, who will requite her kindness and care with coarseness and ingratitude.

Whatever may be the correctness or incorrectness of my conjectures, I could but feel that somewhere that poor, miserable boy had a home, and to that home he was a curse, a disgrace, a blight, or that home had to him been a curse rather than a blessing.

Who of our readers can fail to draw instruction from this incident? Have you a home? Then ever let your conduct be such that whoever may witness it, will not be led to reflect upon the disgrace you bring upon it, but rather let your behavior at all times suggest to the beholder thoughts pure, peaceful, and loving as they connect you and your home.

E. W. K.

THE MAN WHO DETERMINED TO BE FIRM.

WELL, this will never do," said Mr. Veerabout to himself, as he lay in bed one sunshiny morning; "I've been behaving like a child, and, as was to be expected, I've been treated like a child. There's Smith wheedled me into a speculation that almost ruined me, although I knew all the time that it was impossible for that railroad stock to rise any higher; and it's just yesterday that Jones got me to put my name to a note, payable in three months.

"Why, my very wife has me under her thumb, and here am I at this time of day—but I'm determined in future to be *firm*;" whereupon Mr. Veerabout sprang into the middle of the floor with most unwonted agility, to the no small consternation of his loving spouse, who could not but conclude that her poor, dear husband was a little wrong in his mind.

Little passed between them while dressing. Indeed, Mr. Veerabout seemed intensely engrossed with his own thoughts, and when Mrs. Veerabout ventured to suggest that the last piece of soap in the house would soon be gone if it were handled so roughly, her well-meant economy and her ill-timed loquaciousness were quelled at once by an angry frown.

Breakfast-time arrived, and they both sat down together. Mr. Veerabout was the first to break silence. "I must have an egg this morning, Mrs. V."

"Eh—well, my dear, if you had only said so last night; but there are none in the house, and the nearest market where they are to be had is half a mile off, at least."

"Do you understand me, Mrs. V.? I *must* have an egg this morning."

"Oh, surely, Mr. V., if you wish it, I shall send off Nancy immediately."

Accordingly Nancy was sent; but, like many others of her class, she was rather tardy in her movements; at least she could scarcely be said to scour the plains with the speed of a Camilla. Time rolled on, and breakfast was fully discussed, but no word of Nancy or the eggs.

"Mrs. V., have you another servant in the house?"

"Yes, my dear, there is the cook—do you wish to see her?"

"No, I wish you to send her after that good-for-nothing tortoise that's gone for the eggs."

"Remember, my dear, she is the only servant in the house, and Nancy must soon—"

"Mrs. V., do you hear me? I must be obeyed."

So old Betty was sent in quest of Nancy, in spite of all her remonstrances and representations. But Betty was not so active as she had once been; nor had she any great liking for such a wild-goose chase, so that Mr. Veerabout's patience and equanimity were sorely tried. However, he had said that he was to have an egg that morning, and an egg accordingly he must have—for he was determined to be *firm*. But patience has its limits, at least so thought Mr. Veerabout, as he remembered that he had business of the most urgent nature requiring his presence at his office. At length, with a countenance that spoke volumes, and a tone too peremptory to leave room for hesitation, he thundered out—"Mrs. V., put on your bonnet and shawl, and go yourself in search of those lazy servants."

Mrs. Veerabout, trembling from head to foot, was not long in obeying the command, and Mr. Veerabout was left in the house alone. Various and conflicting emotions of wrath, mortification, and self-complacency were passing over his ruffled spirit, when his reverie was interrupted by a loud ring at the door-bell. Upon opening it, he received a note requesting him to repair immediately to the house of a gentlemen who had to leave town at eleven o'clock, and wished particularly to see him before that hour. What was he to do? He must not for any consideration leave before he had eaten his egg, and the egg was yet only on the road. Neither could he leave the house without an inmate, even if he were to sacrifice his dearly bought consistency after all. It was really a perplexing case. With the note in one hand, and his watch in the other, he paced up and down the room in a state of frantic desperation, wondering how it happened that he was always so unlucky—cheated when he suffered himself to be led—balked and mortified when he took his own way—but it was always thus with him, and there was no use in his trying to mend.

Reader, you may draw your own moral from this family incident; but at all events remember this, that firmness without judgment is like a quantity of *gun-cotton* in a frail old fowling-piece, or a locomotive that has run off the rails.—*Anonymous*.

GOOD-NATURE, like a bee, collects its honey from every herb. Ill-nature, like a spider, seeks poison from the sweetest flower.

THE BREAD WE EAT.

BY JAMES F. W. JOHNSTON, M.A.

THE bread we eat I take as a type of our vegetable food. On such foods of various kinds, and eaten in various forms, man and animals are sustained in all parts of the globe. The study of our common wheat will give us the key to the composition and known usefulness of them all.

WHEAT.—When the grain of wheat is crushed between the stones of the mill, and is then sifted, it is separated into two parts—the bran and the flour. The bran is the outside, harder part of the grain which does not crush so readily, and when it does crush, darkens the color of the flour. It is therefore generally sifted out by the miller, and is used for feeding cows, horses, pigs, and other animals.

If the flour be mixed with a quantity of water sufficient to moisten it thoroughly, the particles cohere and form a smooth, elastic, and tenacious dough, which admits of being drawn out to some extent, and of being molded into a variety of forms. If this dough be placed upon a sieve, or on a piece of muslin, and worked with the hand while a stream of water is poured upon it, at first the water which passes away will appear milky. At length it will flow clear, and then will remain a sticky substance. This is what gives tenacity to the dough. From its glutinous character it has obtained among chemists the name of gluten. When the milky water has become clear by standing, a white powder will be found at the bottom of the vessel, which is common wheaten starch. Thus the flour of wheat contains two principal substances—gluten and starch. Every hundred pounds of fine flour contain ten pounds of gluten and about seventy pounds of starch.

When a little yeast is added to the flour before or while it is being mixed with water into dough, and the dough is then placed for an hour or two in a warm atmosphere, it begins to *rise*—it ferments, that is, and swells or increases in bulk.* Bubbles of gas (carbonic acid gas) are disengaged in the interior of the dough, which is thereby rendered light and porous. If it be now put into a hot oven, the fermentation and swelling are at first increased by the higher temperature; but when the whole has been heated nearly to the temper-

* The formation of hard crusts on the loaf may be prevented by rubbing a little melted lard over it after it is shaped and before it is set down to rise, or by baking it in a covered tin.

ature of boiling water, the fermentation is suddenly arrested, and the mass is fixed by the after baking in the form it has then attained.

It is now newly baked bread, and if it be cut across it will appear light and spongy, being regularly sprinkled over with little cavities, which were produced in the soft dough by the bubbles of gas given off during the fermentation. This fermentation is in consequence of a peculiar action which yeast exercises upon moist flour. It first changes a part of the starch of the flour into sugar, and then converts this sugar into alcohol and carbonic acid in the same way as it does when it is added to the worts of the brewer or the distiller. As the gas can not escape from the glutinous dough, it collects within it in large bubbles, and makes it swell, till the heat of the oven kills the yeast plant, and causes the fermentation to cease; the alcohol escapes for the most part during the baking of the loaf, and is dissipated in the oven.

New-baked bread possesses a peculiar softness and tenacity which is familiar to most people, and though generally considered less digestible is a favorite with many. After two or three days it loses its softness, becomes free and crumbly, and apparently drier. In common language, the bread becomes stale. It is generally supposed that this change arises from the bread becoming actually drier by the gradual loss of water, but this is not the case. Stale bread contains almost exactly the same proportion of water as new bread after it has become completely cold. The change is merely in the internal arrangement of the molecules of the bread. A proof of this is, that if we put a loaf of stale bread into a closely-covered tin, expose it for half an hour or an hour to a heat not exceeding that of boiling water, and then remove the tin and allow it to cool, the loaf, when taken out, will be restored in appearance and properties to the state of new bread.

The quantity of water which well-baked wheaten bread contains amounts on an average to about forty-five per cent. The bread we eat, therefore, is nearly one half water; it is, in fact, both meat and drink together. One hundred pounds of fine wheat flour will absorb fifty pounds of water, and give one hundred and fifty pounds of bread. One of the reasons why bread retains so much water is, that during the baking a portion of the starch is converted into gum, which holds water more strongly than starch does. A second is, that the gluten of flour when once thoroughly wet is very difficult to dry again, and that it forms a tenacious coating round every little hollow cell in the bread, which coating does not readily allow the gas contained in the

cell to escape, or the water to dry up and pass off in vapor. A third reason is, that the dry crust which forms round the bread in baking is nearly impervious to water, and like the skin of a potato which we bake in an oven or in hot cinders, prevents the moisture within from escaping.

The bran or husk of wheat, which is separated from the fine flour in the mill, and is often condemned to humbler uses, is somewhat more nutritious than either the grain as a whole, or the whiter part of the flour. The nutritive quality of any variety of grain depends very much upon the proportion of gluten which it contains, and the proportions of this in the whole grain, the bran and the fine flour respectively, are very nearly as follows :

Whole grain.....	12 per cent.
Whole bran.....	14 to 18 " "
Fine flour.....	10 " "

If the grain, as a whole, contain more than twelve per cent. of gluten, the bran and the flour will also contain more than is above represented, and in a like proportion. By sifting out the bran the flour becomes less nutritious, weight for weight ; thus a total separation of the covering of the grain causes much waste of wholesome human food. Bread made from the unsifted flour (flour not bolted, as it is termed) is more nutritious, and as many persons find it also more salutary food than white bread, it ought to be more generally preferred and used.

BARLEY AND RYE.—These resemble the grain of wheat very much in composition and nutritive quality. They differ from it somewhat in flavor and color, and do not make so fair and spongy a bread. They are not therefore generally used in countries where other grains thrive and ripen. In composition and nutritive quality rye and wheat bread very closely resemble each other ; and except as concerns our taste, it is a matter of indifference whether we live on the one or the other. Rye bread possesses one quality which is in some respects a valuable one ; it retains its freshness and moisture for a longer time than wheaten bread.

INDIAN CORN also resembles wheat in its composition and nutritive quality. Its grain has a peculiar flinty hardness, and its flour is usually known as Indian meal. It does not bake into the same light, spongy loaves as wheaten flour, but it is excellent in the form of cakes. The chief peculiarity in its composition is, that it contains more oil or fat than any of the common grains. This oil sometimes

amounts to as much as nine pounds in the hundred, and is supposed to impart to Indian corn a peculiar fattening quality.—*The Chemistry of Common Life.*

LIVING KINDLY.

LIVING friendly, feeling friendly,
Acting fairly to all men,
Seeking to do that to others
They may do to me again;
Hating no man, scorning no man,
Wronging none by word or deed,
But forbearing, soothing, serving,
Thus I live—and this my creed.

Harsh condemning, fierce contemning,
Is of little Christian use;
One soft word of kindly peace
Is worth a torrent of abuse.
Calling things bad, calling men mad,
Adds but darkness to their night;
If thou would'st improve a brother,
Let thy kindness be his light.

I have felt and known how bitter
Human coldness makes this world,
Every bosom round me frozen,
Not an eye with pity pearly;
Still my heart with kindness teeming,
Glad when other hearts are glad,
And my eye a tear-drop findeth
At the sight of others sad.

Ah! be kind—life hath no secret
For our happiness like this;
Kindly hearts are seldom sad ones,
Blessing ever bringeth bliss.
Lend a helping hand to others,
Smile, though all the world should frown;
Man is man, we all are brothers,
Black, or white, or red, or brown.

Man is man through all gradations,
Little reck's it where he stands,
How divided into nations,
Scattered over many lands;
Man is man, by form and feature,
Man by vice and virtue, too,
Man in all—one common nature
Speaks and binds us brothers true.

Anonymous.

Frank.

It's.



THE SKY-LARK.

THIS bird is a native of Europe, and is not found in America, except, it may be, in a few sections where they have been brought hither for the purpose of introducing them. We have heard of only one instance of this kind ; this occurred last summer (1853), in Delaware. A gentleman imported forty-two sky-larks from England, and turned them loose about four miles from Wilmington, Delaware. Several months afterward some of these larks were observed near Reading, Pa. It is hoped that they will breed here, and become widely scattered throughout this country.

This delightful songster is universally diffused throughout Europe, and is everywhere extremely prolific. It is about seven inches in length ; bill dusky on the top, and yellowish beneath. The feathers on the top of the head are dusky, edged with rufous brown ; they are rather elongated, and may be set up as a crest. The plumage on the upper part of the body is reddish-brown, with the middle darkest, and the edges rather pale. The upper part of the breast is yellow, spotted with black ; and the lower part of the body is a pale yellow. The tail is dusky brown ; legs dusky ; claws dusky ; the hind one being very long, straight, and strong. The male is of a deeper color, and larger than the female ; and is further distinguished by having the hind claw longer. The species is subject, however, to considerable variety, and has even been found of a pure white color.

This is the favorite songster in England, so often the theme of rural poets. It is remarkable for its song during a rapid and almost perpendicular ascent. The beauty of the song consists of several

strains, composed entirely of trills and flourishes, frequently interrupted by loud whistling. It is numbered among the few birds which sing while flying. The loftier its flight the more elevated seems the tone of its voice. It commences its song early in the spring, and continues it during the whole summer. When it first rises from the earth, its notes are feeble and interrupted; as it ascends, however, they gradually swell to their full tone, and long after the bird has reached a height where it is lost to the eye, it still continues to charm the ear with its melody. It mounts almost perpendicularly, and by successive springs, and descends in an oblique direction, unless when threatened with danger, when it drops like a stone. It very seldom sings on the ground.

The sky-lark never perches on trees, but is entirely terrestrial, walking and running with facility and swiftness, without hopping. On the approach of danger it squats in any hole or foot-print in the ground, and will thus continue until approached within a yard. The female forms her nest on the ground, beneath some turf, which serves at once to hide and shelter it. She lays four or five dirty-white eggs, blotched and spotted with brown; and she generally produces two broods in a year. These prolific birds are granivorous; they are most abundant in the more open and highest cultivated situations abounding in grain, being but seldom seen in extensive moors at a distance from arable land. In winter they assemble in vast flocks, grow very fat, and are taken in great numbers for the table.

THE OTTOMANS.

A LATE traveler in Turkey thus describes some of the peculiarities in the manners and customs of the Turks:

"They abhor the hat; but uncovering the head, which with us is an expression of respect, is considered by them disrespectful and indecent. No offense is given by keeping on a hat in mosque, but shoes must be left at the threshold. The slipper and not the turban is removed in token of respect. The Turks write from right to left. They follow their guests into the room and precede them on leaving it. The left hand is the place of honor. They do the honors of the table by serving themselves first. They are great smokers and coffee drinkers. They sleep in their clothes. Their mourning habit is white; their sacred color is green; their Sabbath-day is Friday."

Youth's Department.

TRUE BEAUTY.

A FAIRY TALE.

BY MRS. E. M. GUTHRIE.

“THAT I were only beautiful!” sighed a plain little maiden, mournfully wiping away a tear. With these words she fell asleep.

As she closed her eyes, there darted in at the open window as lovely a being as ever graced a fairy festival in the charmed realm of Fancy. Poising herself for a moment upon the half-opened bud of a geranium, which grew fresh and bright beneath her gentle pressure, she rested her eyes thoughtfully upon the shadow of a flowering vine which intercepted the moonlight and threw delicate figures softly upon the carpet.

Here she paused, folding her small hands upon her bosom, to await the more perfect slumber of the maiden; soon, however, she advanced to the bedside, and bending over the pillow she permitted her tresses to brush lightly as the wing of zephyr the brow of the sleeper, and thus she whispered in her dreams:

“Maiden, it is the desire of thy heart to be beautiful. Learn this, then, oh, young inheritor of immortality! that true beauty, the beauty which fades not when the hair becomes gray and years wax many, develops from within.

“Adorning of the outward form alone will not render thee lovely; nor will bright eyes, sunny locks, and comely features (except as these serve to represent the symmetry of thine inner sanctuary) cause thee to be beloved; but in the high thoughts of a pure soul, which will beam forth from thy fresh young face, thou mayest find the power to attract all hearts irresistibly unto thee.

“The dahlia and the poppy are more gay than the rose, yet the rose is the queen of flowers. Her outward proportions may be no more perfect, but her soft petals are laden with grateful odors; from her heart floweth the holy wealth of a sweet nature, and the surrounding atmosphere is hallowed by her presence.

“Gentleness and purity are to thee, dear maiden, as fragrance is

to the rose. Indulge no thought and cherish no emotion but such as are lovely and pure, then loveliness and purity will always dwell as a sacred presence about thee."

"Let me ask, then, beautiful spirit," timidly inquired the maiden, "if this will indeed constitute me very beautiful, so that all who look upon me may love me?"

"Yes, truly," returned the fairy. "This will indeed render thee beautiful; yet remember, maiden, that in thy hours of danger and temptation, purity and loveliness are not easily secured. Oh, fail not to regard them as a prize to be constantly and religiously guarded."

"In thy short sojourn upon earth thou mayest have beheld a valued but tender plant rooted out by the grosser children of Flora's domain. Had a wise hand but have timely removed those intruders from the soil about her roots, sunshine and showers would have surely raised her to the high estate of a joy and blessing to the upper air. But the rank weeds grew, the young plant died, and the air never knew how rich a treasure was once hidden within her gentle heart."

"Loveliness and purity are within thy spirit, sorrowing one; tender and beautiful flowers which God has planted there that thou mayest cherish for him. Yet if the growth of impure thoughts and ungoverned passions is allowed, they would soon shut out the light, drink up the dew, and poison the soil, while loveliness and purity would wither, sadly wither, under their deadly shade."

"Be it thy constant care, dear child, to keep clean the garden of thy heart. Leave it ever open to the rays of truth, and let the dew of innocence nightly rest upon it. Then, as the rare plants of virtue unfold, sending abroad their numberless branches to fill the atmosphere of thine inner life with fragrance and joy, thine outward form will gradually rise to the heavenly proportion of thine inner self. The impression of angelic beauty that blossoms within, will glow softly in thy smile, and fall tenderly from the glance of thine eye. Thy brow will become radiant as thy spirit expands, and thy voice melodious as thy heart swells with that love which encircles every creature of God within its embrace."

"Good-night, little maiden. Seek thou to be generous and noble, truthful and pure, and thou shalt become indeed very beautiful, even unto the eye of angels."

The fairy ceased, and bending gracefully over the maiden, she parted the hair upon the forehead of the sleeping one; then kissing her with the tenderness of a mother, she flitted back again to the

window. Resting once more where the shadow of vines wrought their delicate embroidery upon a ground of moonlight, she clasped her hands together, and upraised her eyes as if invoking a superior power. She remained thus for a moment, but ere long passed away.

As she was departing, a mystic light, soft as the moonbeam, but clear as the morning sun, gathered above the couch whereon the little maiden rested. Beneath its magic influence all traces of tears were effaced, a calm smile came in their stead, and she was baptized with the spirit of joy.

Henceforward her life was as a charmed life. When she awoke upon the morrow, her heart was peaceful and strong, her soul light and free. All about her marked the wonderful change that had come upon the little maiden, though she was half unconscious of it herself, for the day-hours seemed but the continuance of her delightful dream. The quiet, humble grace that attended her steps like an angel of light was as the prompting of her fairy benefactor.

Years passed cheerfully on. The spirit enshrined within that young form became exceedingly lovely; from day to day the outward figure yielded to its sweet proportions, and the fairy's prophecy was at length fulfilled.

THE RAIN.

The following pretty lines were sent us by a girl of about fourteen summers, residing in Massachusetts. They were suggested and written during the severe rain-storm which flooded this section of the country during the last week in April. For simplicity and truthfulness in picturing they are worthy one of maturer years.—Ed.

PATTER, patter, falls the rain.
 Ceaseless patter all around,
 Dimpling all the spreading water
 With a gentle plashing sound.
 Patter, patter, little feet,
 Softly on the carpet fall;
 'Gainst the window-panes are press'd
 Little dimpled hands, and small,
 Marking tiny drops of rain,
 As they glide adown the pane.
 Weary little voices sigh,
 Weary of the constant rain,
 Watching, through the dull cloud-curtain,
 For the sun to peep again;
 Wondering where the birds do hide
 In the pattering showers,

Wondering if the April rain
 Will "bring forth May flowers;"
 "Will the clouds ne'er cease to rain?"
 Thus the little ones complain.

Lo! in yonder western sky
 Sunlight breaks the dark clouds through;
 And upon the eastern cloud
 Spreads "God's promise" to the view.
 Glorious rainbow! thou dost tell
 That the rain shall cease to pour;
 Little ones, hush your complaint,
 Murmur of the rain no more.
 If the rain-drops were not here,
 Would this glorious bow appear?

When the stream of trouble falls,
 Falls upon us like the rain,
 Spend no time in useless sorrow,
 It is folly to complain;
 Hope, hope ever, in good time
 Will the sun come forth again,
 Dissipate the clouds of sorrow,
 And, by trouble made more plain,
 We shall see "God's promise" spread
 O'er the path that we should tread.

EVELINA.

Lectures on Useful Knowledge.—No 1.

INTRODUCTION.

MY DEAR BOYS AND GIRLS:

EVERY day I try to think of something that will be pleasing and instructive to you, because I wish you to love knowledge and virtue. I have now concluded to give you some lectures in THE STUDENT, which I hope will be interesting and useful to you. In these days it is very bad for any one to be without knowledge. There was a time when there were no books, no magazines, no papers, no pens, no ink. Many things now familiar to you were unknown then. Hundreds of years ago people had no comfortable houses to dwell in; no glass to admit the light, and keep out the wind and rain.

In the old times, people living in different places could seldom see each other, and they never sent letters, for there were no mails to carry them. If men traveled fifty miles, it took them a long time of

weary and often dangerous exertion. Some years ago people used to employ for lights at night great torches, with a flickering, smoking flame and suffocating vapors; next they used candles and lanterns, with their dim light; then came gas, which has enabled us to have our shops and streets in cities and large towns at night almost as light as day.

Look around you, and see how many facilities there are for traveling, for reading, and gaining knowledge; and how many comforts we enjoy, which those who lived hundreds of years ago knew nothing about. Three hundred and fifty years ago this country was all covered with dense forests; there were no houses, no cities, and no white people here. Now think of the millions of men and women, and boys and girls, who live here, and of the farms they have cultivated, and the cities they have built, and the railroads, and steamboats, and printing presses, and a thousand other useful things which add so much to our comfort and happiness. Think, too, of messages being sent hundreds of miles and an answer returned while a person waits no longer than a little boy might do who had taken a letter to a gentleman's house, and was told to wait for an answer. And this is really done every day.

Such things as I have already alluded to are so common now that few persons deem them strange or wonderful, yet many of them were never heard of by our great-grandfathers. It is about such things, and what is called *Science*, that I wish to tell you in my lectures, and to explain how many of these wonderful inventions came to be known, and how they are carried on. By attending to these lectures you will have something interesting to think and talk about, and you will learn also to feel how pleasant a thing it is to live in a time when so many privileges surround you. But I did not intend to give you a lecture this time, but merely an introduction, that you might know what I propose to do in future. Thanking you for your kind attention on this occasion, and hoping to meet you all at my next lecture, with many of your friends also, I now take my leave.

It can not be too deeply impressed on the mind, that application is the price to be paid for mental acquisitions; and that it is as absurd to expect them without it, as to hope for a harvest where we have not sown the seed.

Microscopic Views.—No. 2.

OF FLOWERS, AND THEIR FRUIT-DUST.

BY UNCLE GEORGE.

MY young farmer, Willie, is in the garden, threshing about with his hoe among the weeds and grass. Fanny, will you give him a call?"

"Yes, uncle, and I guess he will not be sorry to look at his weeds from a different stand-point, for he seems to have worked at them with a purpose."

"And so he has, but I doubt if he would care to see them any larger before they are hoed up. Should you, little black-eyes?"

"No, sir, unless you should magnify me and my hoe too."

"Ah, Johnny, you needn't expect that; Uncle George *makes much* of you already, without treating you like a 'big bug,' which you know is only a *little* bug in a peculiar position."

"Jennie, I guess you must call Fanny, and Willie too, and I'll reserve my little black-eyes to send after you if you get lost with them."

"No danger; here they come, like a pilgrim and a gay widow, flaunting in weeds. Why, cousin Willie, have you turned herb doctor? What's good for *slow feet*, my loiterer?"

Fanny.—"A pear (pair) quick-set in a white-brier jam. I can tell you as well as Willie."

Willie.—"Why, what's the matter with my grave cousin, Jennie—have you turned wag? Here's a sprig of *rue* for a corrective."

"Thank you, cousin, I'll reciprocate, when you need one, with a sprout of birch."

"A truce, my wild-birds, with your chatter. See what I show you here from Willie's tough 'corn-grass'—this low, spreading tuft, whose seed-stalk is like a leaning lightning-rod, with the three prongs at the top for heads. Along one side only of each prong the seeds are formed, and this is a single blossom, scarcely discernible to the naked eye."

"One blossom! it seems rather like a glorious tree, a tall, leafless, crimson-boughed tree, splendid enough to have borne the golden apples we read of in the 'Wonder Book.'"

"Yes, Fanny, and if your eyes had been bright enough you would

have seen the golden apples on it—there they hang, one, two, three—oh, lots of them!”

“Johnny is always making discoveries; what do you find, Jane?”

“A beautiful trunk, with many stout prongs growing from it, and all of clear and brilliant colors, like a cactus; and on the prongs are clinging bright, yellow globes. Near this, on one side, is a broad, graceful letter X, done in deep purple, and having a white thread to it. How very beautiful this little, insignificant flower appears!”

“Well, I declare, it ought to be something good, for the wiry grass it grows on is tough enough to dig.”

“The pronged trunk is the pistil of the flower, the white thread a stamen, and the purple X an anther. And that little flower has bloomed since the world begun, year after year, in its unnoticed beauty, and been trampled under foot for ages, and still it blooms the same. Is it not then certain that beauty has a higher end to serve, than to please the eye, and that the patience of Nature must be inexhaustible? Now, Willie, shake a little of the dust from that corn spindle upon the glass, and see what you have.”

“Have! I have gold oranges as smooth as glass, and plenty as pebbles.”

“Now break a sprig of the ‘silk’ from the newly formed ear, and look.”

“Why, that is a silver saw with enormously long teeth, and the golden oranges are sticking to the teeth like coarse sawdust.”

“The ‘oranges’ you speak of are the pollen, or seed-dust of the flower; they grow on the *stamens* which, in the corn, are situated on the spindle or top of the plant, and when mature they are shaken by the wind upon the pistils, which make the silken tassel of the ear, and are furnished with those barbs or teeth to catch the pollen. One thread goes to each kernel, and on every thread must lodge this golden dust, or where that terminates in the cob there would be no kernel. Look, now, at the pollen of the squash or pumpkin, Fanny.”

“Oh, the thousand splendid pincushions, with the pins sticking up all over them! If it were not for the pins I should think I saw the little pumpkins themselves.”

“Examine this flower without the glass; you see at the stem of this there is nothing to show the future fruit, while on that which Willie holds is a little green pumpkin. That flower contains the *pistil*, this, which men call a ‘false bloom,’ contains the *stamens* and the pollen on them. If these same ‘pincushions’ of Fanny’s fancy were not in some way brought in contact with that big, unsnuffed

candle-wick, which seems a blaze on the top of the green lamp of of a pumpkin, the innocent race of pumpkins would cease to exist. Alas for our Thanksgiving supper then; all that stands between pumpkin pie and destruction is the very curious contrivance which Nature has to marry the pumpkin blows."

"Oh dear, how is it, Uncle George?"

"I hope the contrivance will not get out of order easily."

"Don't be alarmed, Willie, about the machinery—the works of the Wise Orderer are sure as they are beautiful. You see at the roots of this pistil, which seems the burning wick of the lamp, is a little deposit which might seem to be the oil that rises around the socket; this is really honey, and the plant we are examining is not such a pumpkin-head as you might fancy, for the trick of the thing in setting her honey there is to lure the bees into her longing heart. Just such another honey cup is in the falsely named 'false blossom,' and while the unthinking bee drinks honey there, he gets his thigh covered with this bristled pollen, bristled for that very purpose, you must see; for if it were smooth as the corn pollen it would not adhere; and since the vines run level it could not fall into the needed place, and thus, when he goes farther to get honey he pays his way by leaving the golden fruit-dust brushed off against the glutinous sides of the stigma, by which care the germs below become 'some pumpkins,' as the saying is.

"The rich strawberries are indebted to the same kind minister to perform their marriage, and away he goes with a kiss for the bride and a mouth full of honey to all the lonely blossoms of hill and valley, of field and garden."

"Funny weddings, where bride and bridegroom never meet."

"Yes, Willie; but you must know that in fashionable circles it is customary, on many occasions, instead of a personal visit to send a card. Squashes and pumpkins, no doubt, carry gentility to its utmost extent, and what may seem very queer to my young farmer is all very natural in high life, and with young squashes. But never mind the figure of speech; remember that Nature in all her infinite variety has a purpose, and many a little insect is doing others good service when he only thinks to serve himself."

GOODNESS of heart is man's best treasure, his brightest honor, and noblest acquisition. It is that ray of the Divinity which dignifies humanity.

THE REWARD OF SELFISHNESS.

A FABLE.

In a quiet spot by the river side
A sweet little garden lay ;
It was filled with flowers, the love and the pride
Of all that e'er passed that way.

Then the rain fell down and the gentle dew,
And nourished with equal care
The sunflower tall, the violet blue,
And the rich exotic rare.

The dahlia was there, with so selfish a heart,
That she wished for more than her share ;
So her leaves enlarged, and her roots spread apart,
Usurping the nourishment there.

The violet looked with a tearful eye,
And shrank to her smallest size ;
And a lily pure that was growing nigh
Seemed turning pale with surprise.

The columbine hung her beautiful head,
And pouted her discontent,
And many a flower with quivering dread
Was wondering what it meant.

Still the selfish dahlia loftier grew,
And cast chilling shadows around ;
Contemptuously she her glances threw
On all that grew near the ground.

But the good flower-king, as it chanced, came near,
And to him they quickly appealed ;
He saw their trouble, and gently gave ear
While their wrongs they wholly revealed.

"Oh, what shall be done," said the angry king,
"Oh, what shall be done to the flower
That has dared to do such an unjust thing,
To gain to herself greater power ?

"And this will we do ; let her grow and thrive,
And proudly aspire to the sky,
Yet her beautiful blossoms no sweetness shall give
To attract those who are passing by.

"And you, my oppressed ones, shall fling to the gale
Sweet odors and grateful perfume ;
Bright, rosy-cheeked children shall gladly inhale,
And search for your delicate bloom."

ute among themselves their joyous task, and beckon to one another while they so skillfully spun, so skillfully adorned and embroidered their delicate texture.

But you are silent, sweet children, and enjoy your existence. Very well, the instructive fable shall tell me what you are unwilling to reveal.

Once when the earth stood a naked rock, behold a friendly band of nymphs brought the virgin soil upon it, and kind genii were ready to adorn the naked rock. In various ways they divided among themselves their task. Already under the snow, and among the cold, tender grass, modest meekness began to weave the retiring violet. Hope walked close after her and filled with cool fragrance the little calyx of the refreshing hyacinth.

Now came, since those succeeded so well, a proud train of many colored beauties. The tulip raised its head, the narcissus glanced around with its longing eyes. Many other goddesses and nymphs were busied in various ways, and adorned the earth, rejoicing over their beautiful creation. And behold, when a large portion of their work with its glory, and their delight in it had faded away, Venus spoke thus to the Graces: "Why are ye idle, sisters of gracefulness? Arise, and weave of your charms, blossoms, visible to mortals."

They went down to earth, and Aglaia, the Grace of Purity, formed the Lily. Thalia and Euphrosyne wove with sisterly hand the flower of joy and love, the virgin Rose. Many flowers of the fields and of the gardens envy one another. The Lily and the Rose envy none, and are envied by all. As sisters they bloom together and adorn each other, for sister Graces wove them conjointly.

COME WHEN THE BIRDS SING.—The following beautiful thought was uttered by Professor Caldwell, of Dickinson College, a short time before his death, in conversation with his wife: "You will not, I am sure, lie down upon your bed and weep when I am gone. And when you visit the spot where I lie, do not choose a sad and mournful time; do not go in the shades of evening, or in the dark of night. These are no times to visit the grave of one who hopes and trusts in a risen Redeemer. Come, dear wife, in the bright sunshine, and when the birds are singing."

Children's Department.

THINK AGAIN.

MANY times have we seen little boys and girls get angry at each other, and quarrel, and cry, when both were equally to blame. If such children would only "think again" before they allow themselves to lose their tempers, they would seldom have occasion to quarrel.

Edward and Emma, a brother and sister, were children who used to get angry at each other sometimes, but they have since learned how much happier it is to laugh and be kind, than to cry and quarrel.

One day as Emma came running home from school with blood on her lips, she cried, "Mother, oh, mother, I wish you would whip Edward; he struck me on my face with his hoop-stick."

"Why, Edward," exclaimed the mother, "how came you to hurt your sister so badly? Surely you could not have done it on purpose?"

"No, mother, sister knows that it was an accident. She came running in my way when I was driving my hoop, and the stick struck her; I did not."

"Come to me, Emma, and let me wash the blood from your face; then I will punish your brother if you wish me to. Shall I do so?"

"Yes, mother. He is a careless, naughty boy."

"But think again, Emma. You may be sorry after it is done. You are satisfied that it was an accident, and that you were as much to blame as your brother. You were both careless, and that was the way the accident occurred. If I punish him, I shall hurt him more than he did you. Would it do you any good to see him cry? Would it make your face feel any better to know that he was suffering? Think again. I will do just as you wish. Shall I punish him?"

"No, no, mother," said Emma, quickly, and the tears fell

faster than before; "I knew he did not mean to hurt me."

"Then go and kiss him, and tell him you forgive him for his carelessness, and ask him to forgive you for your anger toward him."

It was a sweet sight to see the loving children locked in each other's arms, and kissing away each other's tears.

WHAT MAKES ME HAPPIEST?

WHAT is it makes me happiest?

Is it my last new play?

Is it my bounding ball or hoop

I follow every day?

Is it my puzzles, or my blocks?

My pleasant *solitaire*?

My dolls, my kitten, or my books?

My flowers, fresh and fair?

What is it makes me happiest?

It is not one of these;

Yet they are treasures dear to me,

And never fail to please.

Oh, it is looks and tones of love,

From those I love the best,

That follow me *when I do right*;

These make me happiest!

—*Fresh Flowers for Children.*

NOBLE BOYS.

A NOBLE boy is an honor to his parents and to his school. It makes us feel happier when we meet such; and we love to tell other boys of their noble acts, that they may learn to imitate them.

One day as a boy had passed a basket of pears, another boy said to him: "Why did you not pocket some of those pears?—there was nobody there to see you."

"Yes, there was—I was there to see myself, and I don't mean to see myself do such a wicked thing," was his noble and prompt reply.

He who gave this answer was poorly clad, but he had a noble face and a true heart.

In the "Young Reaper" we find an incident of another noble little boy :

"One pleasant Sabbath morning, in the city of New York, a boy neatly dressed, with books in hand, was seen walking briskly along the avenue, on his way to the Sunday school. As he approached the corner of the street which led to the church, he heard the voices of several boys, and, on turning, found them busily playing at marbles. They at first tried to persuade him to join them; then they ridiculed him; and finally as he went steadily on, they shouted after him, 'You dare not stop; you dare not stay away from the Sunday school.'

"'No,' said the boy, turning round and looking at them full in the face, 'no; but *I dare go*, even if you do *laugh* at me.'"

Here is still another story of a little boy who had courage to do a noble act though rude boys stood by to ridicule him :

"A crippled beggar in a large city was striving to pick up some old clothes that had been thrown him from a window, when a crowd of rude boys gathered about him, mimicking his awkward movements, and hooting at his helplessness and rags. Presently a noble little fellow came up, and pushing the crowd, helped the poor crippled man to pick up his gifts, and placed them in a bundle. Then slipping a piece of silver into his hands, he was running away, when a voice far above him said, 'Little boy with a straw hat, look up.' He did so, and a lady, leaning from an upper window, said earnestly, 'God bless you, my little fellow—God will bless you for that.'

"The lady was the wife of a man so distinguished among the great men of this world, that every one of those boys would have been proud to obtain her approbation; and when she wrote down his name as one she wished to remember, he felt more than paid for all that he had done.

“As he walked along, he thought how glad he had made his own heart by doing good. He thought of the poor beggar’s grateful look; then of the lady’s smile, and the words of approval; and last, and better than all, he could almost hear his heavenly Father whispering, ‘Blessed are the merciful, for they shall obtain mercy.’”

Little reader, when you have an opportunity to do good, and feel tempted to neglect it, remember “the little boy with the straw hat.

HOW A LITTLE CHILD MAY BE USEFUL.

I MAY, if I have but a mind,
Do good in many ways,
Plenty to do the young may find
In these, our busy days;
Sad would it be, though young and small,
If I were of no use at all.

One gentle word that I may speak,
Or one kind, loving deed,
May, though a trifle poor and weak,
Prove like a tiny seed;
And who can tell what good may spring
From such a very little thing?

Then let me try each day and hour,
To act upon this plan—
What little good is in my power,
To do it while I can;
If to be useful thus I try,
I may do better by-and-by.

—Anonymous.

RESPECT THE OLD.—Bow low thy head, boy. Do reverence to the old man. He was once young like you, but age and the cares of life have silvered his hair. Once, at your age, he possessed the thousand thoughts that daily throng your mind. Bow low thy head, boy, as you would be revered when you are aged, and your fine form bent under the weight of years.

Editor's Table.

WHO IS TRAINING HIM?

LOOKING over the scraps in our editorial drawer, we find the following: "We should like to know what mother is training the mind who is to preside over this great nation thirty or forty years hence." This inquiring glance toward the future is suggestive of many thoughts. What are the mothers in our country doing toward training their children to become intelligent and noble citizens of this vast republic? Are they training their boys to become office-seekers and politicians, or *true men*; men who shall be qualified to honor any situation to which they may be called—whether to occupy the presidential chair, to stand in the councils of our nation, or to fill the sphere of an intelligent citizen of the republic? The men who are to fill all these places which to-day are occupied by others, are now boys, and you, mothers, are molding their characters and guiding their minds; you are polishing the gems that are to glitter in the future history of our country.

There are boys now in some humble families, in obscure towns far away from great cities, whose voices shall yet be heard in our legislative halls. Mothers, you are training these boys. Perhaps some of these may be the son of that mother who reads this in a rude cabin at the far West. Do you not, mothers, often muse on the future career of your sleeping boy, as you watch by his cradle? Would you have him fill an honorable position in society, and prove a blessing to his country and age? Mold that plastic mind with principles of virtue, purity, intelligence, and with the love of God. Guard his expanding powers, and teach him to avoid error of every kind; inspire him with a love of country and a love of mankind; help him to early lay the foundation for a character of sterling integrity. Such are the great lessons which will qualify youth for the responsibilities awaiting them in life, no matter how high their station may be. These are the lessons, too, which should be instilled into the minds of children by mothers.

"Who is training them?" Reader, perhaps it is yourself. How, then, shall your duties be performed? May "Faithfully, thoroughly," be your answer.

TO THE READERS OF THE STUDENT.—Among the numerous words of cheer and encouragement which our mail-bag reveals to us, we find, from some unknown friend, the heading of this paragraph, and the following:

"My dear Friends—By the efforts of the kind Editor we have had much encouragement to do right, and overcome all obstacles to progress and improvement. He has given us good advice, and has illustrated the reward of the good and the punishment of the bad by interesting narratives.

"I do not attempt to tell all, nor the half, he has done for us, but to this particular I wish to call your attention. He has endeavored to impress us with this fact: 'There is no excellence without labor.'

"Do we understand this? Do we realize that whatever we become—whether

we descend to the drunkard's grave or attain to the highest post of honor—depends upon *ourselves*!

"But has the reading of *THE STUDENT* tended to impress this self-evident fact? I can answer: It has. When almost tired of trying to perform some hard task I have found in its pages words of 'lofty cheer.'

"Who can estimate the value of a magazine that inspires the young with a love of knowledge and an earnest desire to become better? The conductor of such a work is a teacher of morality—a benefactor of mankind."

TO TEACHERS AND PARENTS.—The following article, from M. D. G., of Indiana, conveys an important lesson to teachers and parents relative to their treatment of refractory boys at school. Its lesson is embodied in the incident related, and we hope will be read with much profit.

Power of Kindness.—"There comes the teacher!" exclaimed several voices, on the first day of school, as the "new teacher" approached the scene of his winter's labors. Anxiously they had waited his appearance, for various were their thoughts respecting the strange incumbent. Former teachers had ruled with an iron hand, and cases of severe discipline were frequent. With such precedents, it was natural that the assembled school should view with mingled distrust and fear the stranger who was henceforth to hold the reins of government. Nor is it surprising that unkindness had engendered the belief that severity was a predominating trait in the character of every teacher. Hence those who had long been subject to severity, which had blunted all their finer feelings, regarded the opening of school as the commencement of a series of flagellations, frequent and severe. Regarding this as their destiny, their conduct was shaped accordingly. They seemed to be governed by the adage: "No name without the game."

Pre-eminent among them was one whom we will call James. He was without friends, save an uncle with whom he lived, who treated him with great severity, at home, and invariably gave a prejudicial statement of James' ungovernable disposition to the teacher of the school, adding, that the only means of control were frequent punishments, to which course, in conclusion, he advised him to resort. Under such treatment, at the age of sixteen, James bore, without shame, the ignoble distinction of "the worst boy in school."

The teacher kindly greeted those assembled at the door, and entering, followed by the scholars, he very mildly requested them to be seated. The friendly manner in which he addressed them favorably affected their feelings toward the teacher. The scholars were soon seated, when, after a few introductory remarks, the teacher proceeded to address each scholar, making inquiries as to name, studies, state of advancement, etc. He had heard of James as a very bad boy, and had been led to fear that he would, as previously, be a source of difficulty. Placing his hand gently upon the boy's head, he said with the utmost kindness, "Well, my son, are you desirous of doing all you can during the school?" Such language was unexpected; it fell like gentle music on the ear accustomed only to tones of harshness, it soothed his turbulent spirit, enkindled in his soul aspirations to which he had ever been a stranger, and melted his heart, while his eyes were suffused in tears. James was subdued.

Though till then content to be at the foot of his class, with no desire to excel in any thing save turbulence, James had a well-balanced mind, capable of appreciating and retaining scientific principles. The impetus given his intellect

and energy by the kind and encouraging words of his teacher was destined to work wonders in his subsequent career, transforming the idle, unmanageable boy into a studious and attentive scholar, the first in his class and the school. Nor was this all. Fired with zeal, he applied himself assiduously to the cultivation of his mind as opportunity presented; and grappling with and overcoming obstacles, which many in similar circumstances would have considered insurmountable, he pushed on till he graduated with honor at one of the most respectable literary institutions of the Empire State.

Subsequently he established a select school in Western New York, which has since grown to one of the most flourishing academical institutions in the State, where hundreds of youths have received instruction, qualifying them for the task of imparting knowledge to the rising generation. Such is the result of kind words. Go thou, and do likewise.

Our Museum.

ALL our readers are respectfully invited to aid us in making this a useful and interesting department by sending us contributions for it.

JUNE is the sixth month of our year, and the fourth month of the old Roman year. It takes its name from the goddess Juno. In this month occurs the summer solstice—the time when the sun attains its greatest distance north of the Equator, the season of our longest days and shortest nights. It is the month of fragrance, too, when the fields send forth their richest perfumes.

SIRLOIN.—It is said that Charles the Second, of England, gave that name to that part of beef called the *sirloin*. Having dined from a loin one day, and being particularly pleased with it, he asked what that piece of beef was called. On being told that it was a *loin*, he said, jocosely, that it should be knighted for its merit, and called it Sir Loin—hence its present name.

CONSOLS.—Those who read the news from Europe frequently meet with the term “consols,” in such phrases as, “consols advanced,” “consols declined,” etc. *Consols* is a name given to certain public stocks in England formed by the consolidation of different annuities. They are composed of various loans by the government, consolidated into one stock by an act of the British Parliament. In this act they are called “consolidated annuities,” but for brevity they are now known as “consols.” Those who hold shares of this stock receive three per cent. dividends semi-annually.

THE Chinese are said to have labored for centuries under great embarrassment from not knowing how to make a barrel. They could make the staves, and set them up, and hoop them in; they could make the heads, and put one of them in; and, indeed, with the help of a man inside, they could put the second one in; but how to get the man out after the barrel was headed up, that was a problem they could not solve.

CURIOUS STATISTICS.—A cow eats about 100 pounds of green food every 24 hours, and yields an average of 10 quarts or 20 pounds of milk.

There are about 9,000 cells in a square foot of honeycomb. 5,000 bees weigh a pound.

There are six or seven generations of gnats in a summer, and each is estimated to lay 250 eggs.

To produce one pound of silk it requires 2,300 silk-worms. It would require 27,600 spiders to produce one pound of web. An attempt was once made to collect spider-webs for silk, and 4,000 spiders were obtained, but they soon killed each other.

Every pound of cochineal used for coloring contains 70,000 insects. Probably not less than a thousand pounds are annually used for scarlet and crimson dyes.

There is iron enough in the blood of 42 men to make a plowshare weighing 24 pounds.

One pound of gold may be drawn into a wire that would extend around the world.

ORIGIN OF THE WORD ATTORNEY.—Lawyers are called attorneys, because, in the time of our Saxon ancestors, the freemen met twice a year under the precedency of the shire-reeve or sheriff, and this meeting was called the sheriff's torn. By degrees the freemen declined giving their personal attendance, and a freeman who did attend carried with him the proxies of such of his friends who could not appear. He who actually went to the sheriff's torn was paid, according to the old Saxon, "to go at the torn," and hence came the word "attorney," which signified one that went to the torn for others, carrying with him a power to act or vote for those who employed him. The distinction between attorney and solicitor arises from the latter practicing in a court of law.

CARTHAGINIAN NAMES.—The Phenicians and Carthaginians, and, indeed, nearly all the great ancient nations, gave to persons names which were partly formed of the names of their several divinities; hence their signification had reference to their idol gods. *Abibal* signifies *Baal* is my father, or my father is *Baal*; *Ethbaal*, with *Baal*; *Asdrubal*, help or assistance of *Baal*; *Hannibal*, grace or mercy of *Baal*.

BLANKET.—This comfortable article took its name from one Thomas Blanquet, of Bristol, England, who established the first manufactory of blankets at that place, about the year 1340.

THIMBLES.—These useful articles are of Dutch invention. The art of making them was brought into England by John Lofting, a Holland mechanic, who set up a workshop at Islington, near London, and commenced their manufacture about 1695.

OUR COUNTRY'S FATHER.—It was beautifully said of Washington, that Providence had blessed him with no children in order that the whole country might call him *Father*.

FORGIVENESS.—A blind girl on being asked to give the definition of forgiveness, replied: "It is the fragrance which flowers yield when they are trampled upon."

STRANGE.—The following list of words may all be formed from the letters in the word *strange*. There are *sixty-two* in all: Agnes, art, anger, are, agent, argent, age, ate, ant, at, an, as; eat, ear, east, erst, era; great, gate, gear, get, gnat, grate, grant, garnet, gas; nag, net, nest, neat, near; range, rag, rat, ran, rage, rang, rest, rent, rate; sage, sane, sat, sang, seat, set, sea, sent, sear, snare, star, stage, stag, stern, stare; tar, tag, tare, tea, tear, tan, ten.

TOAST.—The following comprehensive toast, by John G. Saxe, was read at the Lowell "Festival of the Sons and Daughters of Vermont."

"*Vermont*—famous for four great staples, namely: men, women, maple-sugar, and horses.

"The *first* are strong, the last are *fleet*,
The *second* and *third* are exceedingly sweet,
And *all* are uncommonly hard to beat."

AN ENIGMA—A LESSON FOR CHILDREN.

I am composed of twenty-seven letters.

My 18, 14, 11, 15, that which you should feel your parents to be.

My 9, 2, 5, 27—18, 5, 7, 21, that which you should gladly do.

My 7, 6, 5, 19, 1, you should always love.

My 8, 23, 22, 26, should be dearer than any other place.

My 20, 4, 8, 2, 5, 27, should always guide your actions.

My 18, 26, 16, 24, 25, you should always be prepared for.

My whole comprises six words, and forms a Scriptural commandment to be treasured in your memory.

PUZZLE OF THE STARS.

Readers of *Our Museum*, please show,
How you *nine stars* would so bestow,
Ten rows to form—in each row *three*—
Tell me, young friends, how this can be?

RIDDLE.

▲ word by grammarians used in our tongue,
Of such a construction is seen,
That if from five syllables you take away one,
No syllable then will remain.

Items and Events.

JUMPING the rope is a healthful exercise, yet a dangerous one when carried too far. For some time past little girls have seemed to have a mania for indulging in this exercise to an intemperate degree; in consequence, several have died from jumping the rope to excess. Instances have recently occurred, one in this State where the little girl died, and another in Massachusetts of a little girl who, at last accounts, was dangerously ill in consequence of jumping the rope five hundred times without cessation.

NEBRASKA.—The bill for introducing slavery into this territory, alluded to in our last number, has been passed by Congress.

EMIGRATION from Europe, particularly from Germany, seems to be greater this season than ever before. On a single day, a few weeks since, 12,000 immigrants arrived at New York city—enough to people two or three towns at the West.

DEATH OF MONTGOMERY, THE POET.—James Montgomery died on the 30th of April last, at Sheffield, England, at the age of 82.

NOTICES.

Literary Notices.

Books noticed in *THE STUDENT* may be obtained by persons residing in any part of the United States, at their own post-office, free of postage, by inclosing the price here given, in a letter post-paid, and directing it to N. A. CALKINS, 349 Broadway, New York.

A CHILD'S HISTORY OF ENGLAND. By Charles Dickens. Containing the history of England from ancient times down to 1837. Published by Harper & Brothers, New York. In two volumes, 18mo; about 300 pages each. Muslin.

A more interesting History of England for the young we have never seen. Parents who desire their children to acquire a love for history, could hardly do better than to place in their hands a copy of this work. Price by mail, postage pre-paid, \$1 35.

LIFE AND SAYINGS OF MRS. PARTINGTON, and others of the Family. Edited by B. P. Shillaber, of the *Boston Post*. Published by J. C. Derby, New York; and Phillips, Sampson & Co., Boston. 12mo; 384 pages. Muslin.

Every body has heard of the venerable Mrs. Partington, who is always making so many laughable blunders; and every body remembers and relates some of her sayings; and we now advise every body who enjoys hearty laughs, and can relish genuine fun, to get a copy of the "Life and Sayings of Mrs. Partington." Be sure to get the genuine one, written by B. P. Shillaber, for he is the *real* personage who writes all those sayings of Mrs. Partington, and tells us also about "Ike" and "Paul." The work contains numerous illustrations of the old lady and her adventures. We will send it by mail, free of postage, for \$1 80.

CRYSTALLINE; Or, the Heiress of Fall Down Castle. A Romance. By F. W. Shelton, A. M. Published by Charles Scribner, 145 Nassau Street, New York. 12mo; 203 pages. Illustrated. Muslin.

A prettily written story, teaching the value of little things and the beauty of goodness. Its lessons exert a happy influence over the hearts of its readers. Price by mail 90 cents.

THUNDER AND SUNSHINE; Or, Life in Kentucky. By Mrs. Mary J. Holmes. Published by D. Appleton & Co., New York. 12mo; 361 pages. Muslin.

Few writers give more vivid pictures of life in the South than Mrs. Holmes. Yet she does not treat of the institution peculiar to that section of the country, but of individuals. Her delineations of Joshua Middleton, a wealthy slave-holder, residing in a retired location, are

minutely drawn, and the reader will not forget his quaint and abrupt manner, nor tarry long in his company without many a hearty laugh. It is an attractive book—just one of those you can not leave until it is finished. Price by mail, \$1 00

THE CHEMISTRY OF COMMON LIFE. Number 2 is now ready. Published by D. Appleton & Co., New York. 96 pages.

In noticing the second number of this work, we would call attention to what was said in our last number of part first, and assure our readers that it is one of the most readable and interesting scientific works ever published. An extract may be found in another part of *THE STUDENT* for this month. Price by mail, postage pre-paid, 20 cents.

THE YOUNG AMERICAN ELOCUTIONIST. For the use of Schools and Private Students. By Lewis B. Hardcastle. 12mo; 150 pages. Published by C. Shepard & Co., New York.

We have long believed that some small treatise on elocution, adapted to children, arranged expressly for the cultivation of the vocal organs, and a thorough discipline of them, would be highly useful. Such a work should be as explicit and comprehensive as possible, with each principle amply illustrated by examples. The work before us embraces our principal ideas on this subject, yet it might have ended with part *first*, and for subsequent practice, the regular reading lessons been used. With the chapter on Faults of Articulation, in this work, we are particularly pleased. Price by mail, 50 cents.

KNICKERBOCKER.—This old favorite, and ably conducted magazine, closes its forty-third volume with the number for June, and commences its forty-fourth volume with July. Age does not dim its freshness, for "Knick" of to-day is the same sprightly, genial, delightful companion that he was in days of yore. Terms \$3 00 a year. Published by Samuel Hueston, 348 Broadway, New York.

HOUSEHOLD WORDS.—A new volume of this magazine, conducted by Charles Dickens, commenced with May. It contains a new and very interesting story—"Hard Times." Terms, \$2 00 a year. Address T. L. McElrath & Co., 17 Spruce Street, New York.

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TO TRUSTEES OF COLLEGES; PRINCIPALS OF SEMINARIES, ACADEMIES, AND SCHOOLS; ALSO LAWYERS, PHYSICIANS, PROFESSORS, TEACHERS, AND OTHERS.

We frequently receive orders for school apparatus, scientific instruments, books, etc., from persons residing in various parts of the Union. It occurred to us that many others would be glad to avail themselves of a like opportunity to procure such articles, did they know whose services they might command for that purpose. With a view of affording such accommodations to all, the Publisher of *THE STUDENT* has made arrangements with publishers of all kinds of books, maps, charts, etc., and with manufacturers of school-furniture, and scientific apparatus, embracing mathematical, philosophical, and other instruments, by which he is enabled to supply all orders on the most favorable terms.

Orders for apparatus, etc., will be filled at the manufacturer's prices; and for books, etc., at the prices usually charged by the publishers, for such numbers as may be ordered. As a compensation for our services, we shall charge a small commission, varying from *three to five* per cent, according to the trouble attending the filling of the order.

All orders should state as distinctly as possible, the kind and quality of the articles desired, and be accompanied with the CASH. Directions should also be given how to forward them, whether by express, or as freight, or otherwise.

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PROSPECTUS OF

The Connecticut Common School Journal

AND

ANNALS OF EDUCATION.

THE CONNECTICUT COMMON SCHOOL JOURNAL, now the oldest educational periodical in America, having been commenced more than fifteen years ago, has been transferred by Hon. Henry Barnard, its original and sole editor and proprietor, to the CONNECTICUT STATE TEACHERS' ASSOCIATION, under whose direction it will hereafter be published. It will be called the CONNECTICUT COMMON SCHOOL JOURNAL AND ANNALS OF EDUCATION. It will be published *monthly*, in octavo form, each number containing *thirty-two* pages, or *more*, making an annual volume of at least 400 pages. The first number will be issued January 1st, 1854.

The subscription price will be One Dollar a year, payable *in advance*; new subscribers to commence with the volume, unless directing otherwise.

It will be conducted during the year 1854 by a board of Editors appointed by the State Association, consisting of the following gentlemen: HENRY BARNARD, LL.D., *Supt. of Common Schools*; PROF. JOHN BROOKESBY, A.M., of *Trinity College*; T. W. T. CURTIS, A.M., *Principal of Hartford High School*; PROF. DAVID N. CAMP, A.M., of *the State Normal School*; REV. E. B. HUNTINGTON, A.M., *Principal Waterbury High School*; PROF. JOHN JOHNSON, LL.D., of *Wesleyan University*; E. A. LAWRENCE, A.M., *Principal of Stamford Union School*; PROF. JOHN D. PHILBRICK, A.M., *Principal of State Normal School*; PROF. THOMAS A. TRACHER, A.M., of *Yale College*; and the undersigned, who will act as *Publishing Agent*, and to whom all *remittances and business letters* should be addressed, post-paid. His head-quarters are at the office of the Superintendent of Common Schools, Hartford, Conn.

PROF. JOHN D. PHILBRICK has been appointed *Resident Editor*, to whom the immediate supervision of the Journal is assigned, and to whom all *communications* should be addressed, at New Britain, Conn.

The Journal will be devoted exclusively to the interests of Education, of all classes and grades. Its objects are especially and specifically two-fold: to furnish valuable technical information to professional teachers, and to present and advocate the cause of Education as interwoven with the life and interests of the state and nation—as one of the first, weightiest, and noblest departments of our existence and action as a people. It will, however, studiously avoid all political partisanship and religious sectarianism.

The names of its editorial corps are an ample assurance that the Journal will possess an interest neither exclusive nor ephemeral; that it will not only be valuable to the professional teacher, but well worthy the personal and consideration of all faithful parents and dutiful citizens.

All teachers and friends of education are desired to act as *voluntary agents*. Every Minister, School Visitor, and Committee-man would derive especial profit from the Journal.

ADVERTISEMENTS.—We would call the attention of school-book publishers to the facilities afforded by our *advertising sheet* for communication with teachers and committees. Address

FRED. B. PERKINS, Publishing Agent, Hartford, Conn.

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THIS is a monthly periodical, published at Albany, N. Y., established in 1852 under the patronage of the N. Y. STATE TEACHERS' ASSOCIATION. Each number contains 32 octavo pages of reading matter, making the whole volume a book of about 400 pages. It is conducted by a Board of Editors, consisting of twelve persons, who are appointed annually by the Association. The present Editors are

PROF. UPSON, of Hamilton College.

HENRY KIDDLE, New York,

W. W. NEWMAN, Buffalo,

J. W. BULKLEY, A. M., Williamsburgh,

C. R. COBURN, Binghamton,

PROF. BOWEN, State Normal School,

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A. E. SCHEPMOES, Kingston,

R. D. JONES, Rochester,

X. HAYWOOD, Troy,

JAMES JOHONNOT, Syracuse,

S. G. LOVE, Randolph.

The immediate charge of THE TEACHER is committed to a Resident Editor, who is also appointed by the Association.

By an examination of the above names, it will be seen that all interests are represented in its management, including Colleges, Academies, District and Select Schools. By this arrangement, a variety of talent is also secured, as well as a direct correspondence secured from all parts of the State.

An arrangement has been made recently with the Superintendent of Public Instruction, by which THE TEACHER is to be made the organ of communication between that department and subordinate school officers. From the 1st of May, 1854, all the decisions of the department, and all the official circulars emanating from it, are to be published in THE TEACHER, and a copy is to be sent gratuitously to each Town Superintendent in the State. It will thus be seen that our Journal is to be made a most desirable medium for the transmission of educational intelligence to and from all parts of the State.

Our advertising pages will contain the advertisements of all the principal publishing firms, and especially those which deal largely in school-books. THE TEACHER is already sent to almost every State in the Union, and circulates largely in nearly every county in the State.

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Single Copy, per Annum	\$1 00	Fifteen Copies, per Annum	\$10 00
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All remittances and business letters should be addressed to Prof. T. H. BOWEN, Normal School. All letters appertaining to the editorial department to the undersigned

T. W. VALENTINE,

ALBANY, May, 1854.

Resident Editor.

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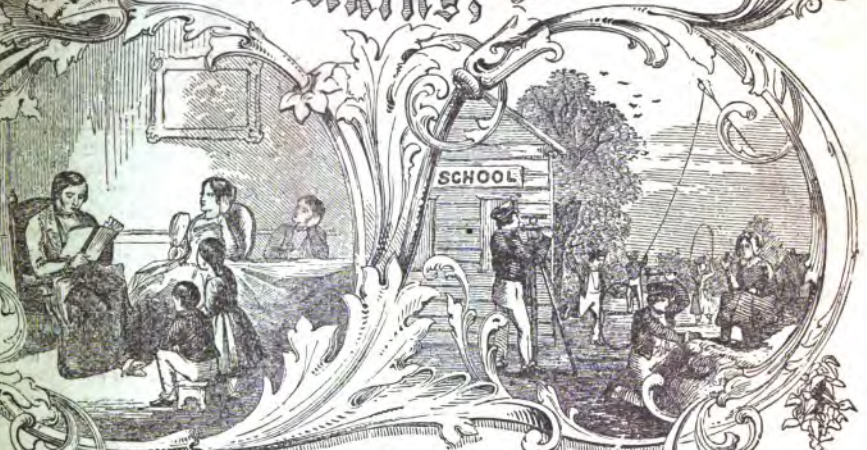
JULY, 1854

No. 3.

THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

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Office of The Student, Room No. 10, Appleton's Buildings, 349 Broadway, New York.

TO CORRESPONDENTS.

C. O. M., of W.—Your article is hardly suitable for publication.

Mrs. N. A. B., of O.—We do not think your article quite suited for THE STUDENT. Please examine the character of the articles in Youth's and Children's Department, and perhaps you may furnish something new of a similar character, and on such or similar subjects.

G. B., of Sweet Water, Ill., writes us as follows: "My hearty thanks and good wishes are due you for your kindness in sending me an extra copy of THE STUDENT after my subscription had expired. I live in a new and sparsely settled country, yet I have taken some pains to get a few new subscribers to THE STUDENT, to reciprocate your favor." Accompanying this letter were the names of eight new subscribers and the money to pay for them. Such is the result of a little effort of one individual. If each of the thousands who are now the only subscribers at their respective post-offices would do as well, our subscription list would be quadrupled in a few months.

TEMPERANCE HOTEL AND DINING SALOON.—For several years Mr. J. S. SAVERY has kept a temperance dining saloon in this city, which received the patronage of a large class of our temperance and quiet-loving citizens. He has recently opened a new saloon and temperance hotel at No. 14 Beekman Street (near the City Hall Park), where he can now accommodate persons from abroad with sleeping rooms, as well as supply the wants of their appetite. His accommodations are good, and charges reasonable. See advertisement below:

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MERRIAM, MOORE & Co., Troy, N. Y.

BUSINESS NOTICES.

TO DELINQUENT SUBSCRIBERS.—With the May number of the present volume we sent notices to those subscribers whose term of subscription expired with April, requesting them to inform us immediately by letter if they wished THE STUDENT discontinued to them; but if they desired its continuance, to forward to us the amount of their subscription at once. Some subscribers not having complied with this request, in the June number we stated that all who did not inform us otherwise before the first of July, we should consider as subscribers for the present year, and send the magazine accordingly. Some who did not comply with our first request, sent us pay for the May and June numbers, where they wished to discontinue; but many more promptly remitted the amount of subscription for another year. Still a few old subscribers are delinquent, and we now inform them of our intention to continue the magazine to them until arrearages are paid.

Bills on any specie-paying bank, post-office stamps, or gold, may be sent us in payment for subscriptions, at our risk, if properly mailed in presence of the postmaster.

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CRYSTALLINE; or, the Heiress of Fall Down Castle. By Rev. F. W. SHELTON. 12mo; 202 pages. Illustrated. What the Press say of it.

"Our friend—we so speak of the author of this and other pleasant things that we have read, though we have never seen him, for we do feel a weakness toward one who writes as we feel—has illustrated the value of little things in this charming volume, which, having once begun it, one will not willingly let go until it is finished."—N. Y. Obs.

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"The author's characteristic sweetness and freshness of style mark this book. It is pervaded with a charming influence, and teaches an excellent lesson."—M. Courier.

Published by CHARLES SCRIBNER, 145 Nassau Street, New York.



SWISS HERDSMAN.

AMONG the Alpine ranges of Switzerland, the Tyrol, and Italy, on the approach of summer, the peasants lead their herds up to the pastures on the mountains. These, from their height and coldness, are uninhabitable during the winter and early spring months; and some of them do not afford food for the cattle until late in June.

VOL. IX.—NO. 3.—JULY, 1854.

In these Alpine heights are built log huts, called *châlets* (shal'-leys), in which the herdsmen are sheltered.

When the snows have disappeared from the mountain pastures, and the summer's warmth has covered their sunny slopes with fresh verdure, the herdsman, who loves his mountain life as the sailor loves the sea, joyously prepares to leave the valley. As these pastures are accessible only by steep and winding foot-paths, the few articles of food, and the simple household furniture for making butter and cheese, are carried up on the backs of the herdsmen. Supported by their broad shoulders, these athletic men bear a large basket filled with the smaller utensils, such as a milk-strainer, a one-legged stool, a cheese-mold, and some straw; besides, he carries the press on which the cheeses are to be placed to drain, a large kettle in which the milk is collected, heated, and made into curds, also a churn, milk-pails, and a few other implements.

The herdsman usually carries a heavy staff, pointed with iron, on which he leans for support during his more rugged ascents. This instrument also serves as a formidable weapon of defense in his powerful hand. Thus laden he sets out for his summer's sojourn amid the mountains, to pass his time with his cattle in entire solitude.

The foregoing sketch is a very excellent illustration of the herdsman as he begins to ascend the mountain. He stands on an elevation far above the valley where he has just left his family, and turns an affectionate glance toward his home. He sees the smoke issuing from the roof which sheltered him during the storms of winter, and beneath which his wife and children still reside. He thinks how happy he has been in that home, and how those whom he has left in his *châlet* will miss him at the frugal meal. But his herd of cows and goats have gone on before him, and he proceeds on his way leaving these cherished objects behind, with hopes of a prosperous season, and of a joyful greeting on his return.

The life of the Swiss herdsman is not an idle one, as it is often described to be; he has to collect ten or fifteen cows twice a day to be milked, many of which may have strayed away in different directions. Besides this, he makes the cheese and the butter, and keeps his utensils clean. As these people lead a migratory life, they can not build barns or yards to keep their cattle secure at night and to shelter them in stormy weather, hence it frequently happens, amid severe storms, that the herdsmen are up all night in the mountains, calling to their cattle, as without this precaution they might take fright, run into dangers, and be lost.

Hardy, robust, and indefatigable, and inured to exposure from childhood, his weather-beaten frame is indifferent to the vicissitudes of climate. He is wild and uncultivated, and ignorant of the usages of other people; yet simple and uncontaminated by the vices unfortunately too common among the laboring population of other districts. His appearance is generally dull; but when by chance a wandering traveler visits his haunt, he will follow him for miles, simply in order to exchange with him a few words of conversation.

The *châlet* of the herdsmen is somewhat like an American log-house of the rudest construction, with a roof projecting eight or ten feet on each side, thus forming a sort of piazza. An opening in the clumsy shingles, of which the roof is constructed, forms the chimney. The bedroom of these herdsmen is under the roof, which projects outside of the house, and is composed of a wooden gallery hung up under this piazza. They go into it by means of a ladder; and several herdsmen sleep together on a little straw, which is not changed during the season. The ground around the *châlet* is so broken up by treading of the cattle, and so filthy, that without stepping stones it would be difficult to reach the door. To finish the picture, about some of these huts a herd of swine ranges, waiting for their allotted portion of the buttermilk and curds. These are the residences of the Swiss herdsmen on the high Alps during some two or three months only; no women reside there. Many of these herdsmen do not return to their homes in the valley more than once or twice during the season; then it is to convey home some of their butter and cheese, and to obtain an additional supply of food, which consists of a little meal, the remainder of their food being chiefly milk.

The short summer soon passes away, and the herdsmen again prepare to descend to the valley, to shelter their flocks from the storms of an Alpine winter. As they return from their mountain pastures, after an absence of usually about three months, each heavily laden with the summer's produce, on approaching within sight of home their wives and children come out to greet them, and in happy groups they enter their native village. Here, with their families, the remainder of the year is passed, and when summer's verdure again clothes the mountain slopes, they prepare for another sojourn amid forests and glaciers of ice.

The Swiss herdsman, the class we have here described, by no means comprise all the inhabitants of Switzerland, but only a portion of even the peasantry. Another class cultivates the soil; others are

engaged in mechanic arts, and have gained remarkable skill in the construction of clocks, watches, and various other instruments for the measurement of time. They are also distinguished for their skill in the construction of musical instruments, such as organs, musical boxes, etc. The accordeon is of Swiss origin, and the wild melody of its tones seems to have imprisoned the passing mountain echoes, to let them escape at will.

In the Swiss character we find integrity, industry, contentment, an ardent love for the charms and grandeur of nature, and a passionate attachment to their native mountains and valleys. The romantic music of the peasant's Alpine horn, echoing among their native mountains, makes such an impression upon their minds, that its sound, when heard by them in a foreign land, will cause the tears to flow, in remembrance of their Alpine homes. The grand and delightful scenery of Switzerland, its stately mountains crowned with eternal winter, and its deep valleys in perennial verdure, seem to have exerted a beneficial influence on the character of those who live in the contemplation of their charms, and imparted to them a superior moral development.

THE WATER WE DRINK.

BY J. F. W. JOHNSTON, M.A.

NEXT in importance to the air we breathe is the water we drink. It forms three fourths of the weight of living animals and plants, is the most abundant substance we meet with on the face of the earth, and covers, to an unknown depth, at least three fourths of its entire surface. Pure water consists of two simple or elementary substances—oxygen and hydrogen. The former of these exists also in common air, and has already been described in the article entitled "The Air We Breathe," published in *THE STUDENT* for May.

HYDROGEN.—This is a kind of air or gas which, when pure, is without color, or taste, or smell. It differs from oxygen, nitrogen, and carbonic acid, first, in being the lightest of all known substances; and, second, in taking fire and burning in the air when a lighted taper is brought near it. It is owing to the lightness of this gas that we owe the power of traveling through the air in balloons.

Between air and water there is an important chemical distinction. In air the constituents are merely *mixed* together, while in water

they are *chemically combined*. When nitrogen and oxygen are *mixed* together to form common air, each of them retains its gaseous form, and all its properties unaltered; but when hydrogen and oxygen are *combined* to form water, they severally lose both their original gaseous forms and all their distinctive properties, both physical and chemical. Water is not light, like hydrogen, nor will it burn as that gas does; neither will bodies burn in it as they do so readily and brilliantly in oxygen gas.

Now, when bodies combine chemically, they always form a new substance different in its properties from those which have been employed in producing it; and, indeed, it is one of the wonders which modern chemistry has made known to us, that hydrogen, which burns so readily, should form so large a part of water, our great extinguisher of flame; and that oxygen, so indispensable to animal life, should form eight ninths of a liquid in which few terrestrial animals can live for more than three or four seconds of time.

Many of the properties which water possesses are wonderfully conducive to our comfort, to the supply of our daily wants, and to the maintenance of the existing condition of things. Thus, even the unheeded property of its freedom from smell and taste is important to animal comfort. Sweet odors are grateful to our nostrils at times, and pleasant savors give a relish to our rarer kinds of food. But health fails in an atmosphere which is ever loaded with incense and perfumes, or where the palate is daily pampered with high-seasoned dishes and constant sweets. The nerves of smell and taste do not bear patiently a constant irritation, and the whole body suffers when a single nerve is continually jarred. Hence it is that water and air, which have to enter so often into the animal body, and to penetrate to its most delicate and most sensitive organs and tissues, are made so destitute of sensible properties that they can come and go to any part of the frame without being perceived. Noiselessly, as it were, they glide over the most touchy nerves; and, so long as they are tolerably pure, they may make a thousand visits to the extremest parts of the body without producing the most momentary irritation or sense of pain. Externally, also, they can be applied to the most delicate, inflamed, or skinless parts of the body, not only without irritating, but generally with the most grateful and soothing effects. These negative properties, which are common both to air and water—though, as I have said, they are rarely thought of—are nevertheless most essential to our daily comfort.

Again, water possesses a cooling property, which is very grateful

to all living things. The priceless value of water in "a dry and thirsty land" arises mainly from the necessity of constantly supplying that which, in a dry and warm atmosphere, is constantly evaporating from the skin and the lungs. But in all climates water has a cooling power, which gives it a new value to the hot and fevered animal. When taken into the mouth and stomach, or when poured over the inflamed skin, it cools more than an equal weight of any other liquid or solid substance we could apply. This arises from the circumstance, that it takes more heat to give a sensible warmth to water than to an equal weight of any other common substance. Thus the same quantity of heat which is required to raise the temperature of 1 lb. of water a single degree (from 60° to 61° for example) would give an equal increase of temperature to 30 lbs. of quicksilver; and so, again, to convert water into vapor, requires more heat than an equal weight of any other liquid we consume. Hence, when water evaporates from the skin, it serves as a constant cooler of the surface; while the vapor, which escapes with the breath, cools equally the interior of the body. It is really very interesting to observe how the great capacity of liquid water for heat makes it so gratefully cooling as it enters the body; and how its still greater capacity for heat, when passing from the liquid state to the state of steam, enables it so constantly to bear away from us the germs of fever, as it escapes from our bodies in the form of insensible vapor.

But the peculiar composition of water is also a very important circumstance to animal and vegetable life. It consists of oxygen and hydrogen; and all the solid parts of animals and plants contain these same elements in large proportion. In the dry wood of the tree, for example, and in the dry flesh and bone of the animal, both are present. Now, as the plant and animal increase in size, oxygen and hydrogen are required for the formation of their growing parts, and water is everywhere at hand to supply these necessary ingredients. This is a chemical duty which no other liquid but water could equally perform. Water, in discharging this duty, is not merely the drink, as we usually call it, but is really part of the food both of animal and plant.

Further, pure water possesses the property of mixing with some other fluids, such as alcohol, in all proportions, merely weakening or diluting their strength. With others, again—as with oil—it refuses to mingle. Solid substances it has the property of dissolving; and upon this property depend many of the most useful purposes served by water, in reference both to animal and vegetable life.

If a piece of sugar and a piece of glass be put together into a quantity of water, the former will dissolve and disappear, while the glass will remain for any length of time in the water unaltered in form or in weight. Water does not dissolve all bodies therefore. Sugar is soluble—glass is insoluble in this liquid.

Again, if into two equal quantities of water we introduce loaf-sugar and common salt—the sugar into the one and the salt into the other—as long as they are respectively dissolved and disappear, we shall see that 1 lb. of water will dissolve perhaps 2 lbs. of sugar, forming a thick syrup, while it will only dissolve $5\frac{1}{2}$ oz. of common salt. Thus, of those substances which dissolve in water, some are much more soluble—that is, disappear in larger quantity than others do.

In nature, water is never found perfectly pure ; that which descends in rain is contaminated by the impurities it washes out of the air ; that which rises in springs, by the substances it meets with in the earth itself. In rivers the impurity of the water is frequently visible to the eye. It is often of a red color as it flows through rocks of red marl which contain much oxide of iron in their composition ; it descends milky from the glaciers of Iceland and the slopes of the Andes, because of the white earth it holds in suspension ; it is often gray or brown in our muddiest rivers ; it is always brown where it issues from boggy lakes, or runs across a peaty country ; it is sometimes black to the eye when the quantity of vegetable matter is excessive, as in the Rio Negro of South America ; and it is green in the Geysers of Iceland, in the Swiss lakes, and among the islands of the South Sea, because of the yellow matters which it everywhere holds in suspension or solution. Only in clear and deep waters—like those of the Bay of Naples, and in parts of the Pacific, where minute objects may be seen on the bottom, some hundreds of feet down—is the real blue color natural to water, in large masses, distinctly perceptible.

Generally speaking, rain water which falls in remote country districts is the purest ; then comes river water ; next, the water of lakes ; after these, common spring-waters ; and then the water of mineral springs. The waters of the Black Sea and the Sea of Azof, which are only brackish, follow next ; then those of the great ocean ; then those of the Mediterranean and inland sea ; and last of all come those of lakes which, like the Caspian Sea, the Dead Sea, and Lake Aral, possess no outlet. All the solid matter which the rivers carry into the sea remains there, while the water which brings it is con-

tinually rising again in vapor. This vapor, as we have seen, descends in the form of rain on the interior of continents, and there dissolves, and thence carries down new supplies of mineral matter to the sea. In this way saline matter has accumulated in the ocean till its waters have become briny and bitter to the taste. In the same way, also, it has accumulated in the Caspian and Dead Seas—the more rapid evaporation in these parts of the world, the unfrequent rains, and probably the neighborhood of deposits of rock salt, having aided in making these inland waters so much saltier than those of the great oceans.

Lime, in combination with carbonic acid (carbonate) and with sulphuric acid (sulphate) is an abundant substance in waters. Indeed, it very often exists in large quantity, especially in spring waters; and it is chiefly to the lime and magnesia they contain, that what are called *hard* waters owe their property of curdling with soap. Pure waters are always soft; and when a water is tolerably soft, it may be inferred that it does not contain any large proportion of lime or magnesia.

Waters which contain much lime are often bright and sparkling to the eye, and agreeably sweet to the taste. They generally become somewhat milky when boiled, and leave a sediment, which incrusts the inside of kettles or boilers. When strongly impregnated with lime, they will even deposit a calcareous coating along their channels as they flow in the open air, or will incrust, or petrify, as it is called, any solid substances which are immersed in them. These circumstances are, owing to the peculiar way in which the lime is held in solution.

Water absorbs also the gases, oxygen and nitrogen—of which the atmosphere chiefly consists—but not in the precise proportions in which they exist in the air. We have seen that the air we breathe contains about 21 per cent. of oxygen, but in the air which we can extract from water it exists to the amount of 31 to 33 per cent. This, among other purposes, is an adaptation to the wants of fishes, and generally of those marine animals which extract the oxygen they require for the support of life from the water in which they live. They can obtain the necessary supply of this gas more easily from air which contains one third than from one which contains only one fifth of this vital principle. If proof of this were required, it is found in the observation that, where circumstances have been such as to deprive river water of a portion of its oxygen, the fish have been found dead in great numbers.

It has recently been discovered by Hayes, that the water of the sea contains more oxygen near its surface than at a depth of one or two hundred feet. This is probably connected with the comparative scarcity of animal life at great depths.

This tendency of water to dissolve more oxygen, in proportion to the nitrogen, than exists in common air, explains another curious circumstance which long puzzled philosophers as well as ordinary people. If a bottle be filled quite full with snow, be well corked, and then put into a warm room, the snow will melt, and the bottle will be filled, perhaps, one third with water and two thirds with air. If this air be examined, it will be found to contain less oxygen than atmospheric air—sometimes not more than 12 or 14 per cent. ; while atmospheric air, as we have seen, contains 21 per cent. Hence it was long supposed that the air, always present in snow, naturally contained this small proportion of oxygen, and that snow, therefore, possessed some peculiar property of absorbing the gases of the atmosphere in this new proportion. But the explanation is, that the snow, in melting into water, takes up a larger proportionate quantity of the oxygen than it does of the nitrogen of the air which was contained in its pores, and consequently leaves a smaller proportion behind.

Thus the water we drink, like the air we breathe, is a substance of much chemical interest. Both are indispensable to the existence of life ; both are mixed in nature with many substances not essential to their composition ; and both, in their most important properties, exhibit many direct relations to the growth of plants and to the wants and comforts of living animals.

WHAT WE DO WITH THE HAND.—Montaigne says : " With the hand we demand, we promise, we call, dismiss, threaten, entreat, supplicate, deny, refuse, interrogate, admire, reckon, confess, repent ; express fear, express shame, express doubt ; we instruct, command, invite, encourage, swear, testify, accuse, condemn, acquit, insult, despise, defy, disdain, flatter, applaud, bless, abuse, ridicule, reconcile, recommend, exalt, regale, gladden, complain, afflict, discomfort, discourage, astonish, exclaim, indicate silence, and a variety and multiplication of acts that keep pace with the tongue."



MENDELSSOHN.

ON the third of February, 1809, Felix Mendelssohn was born at Hamburg, in Germany. He was the son of Abraham Mendelssohn, a banker, and grandson of Moses Mendelssohn, the great philosopher and Hebraist. Felix was the second in age of a family of four children. He had an elder sister, Fanny, a younger brother, Paul, and a second sister, Rebecca. His mother, whose maiden name was Bartholdy, watched with anxious affection the development of the boy's mind. When he had completed his third year, his parents removed to Berlin. Here his wonderful talents unfolded, and early promised a brilliant future.

When only eight years old he played the piano with great facility and execution. His ear for music was extraordinary, and in a moment he would detect the dissonance of an instrument, or the false intonation of a voice, at a time when the music was loudest, and the great body of sound most likely to drown the discordant part. All

these qualities proved him to be in possession of powers quite uncommon to youths of his age, and he was placed under the instruction of Zelter and Berger, two German artists, who taught him his first lessons in composition and piano-forte playing.

In 1823, Abraham Mendelssohn took his son to Paris to visit Cherubini, a celebrated teacher of music, for the purpose of ascertaining whether his son did really possess so decided a genius for music as popular praises had accorded to him. Cherubini unhesitatingly acknowledged the boy's talents, and encouraged his father in giving him the best opportunities for development. On their return from Paris they called upon Goethe;* who soon afterward wrote to Zelter, that young Mendelssohn there "brought out his first quartette; every body was thunderstruck; to hear the first performance of a work dedicated to me enhances the pleasure I feel at the compliment; it has done me much good, too." Ever after, Goethe and Mendelssohn were the warmest of friends; and they kept up a correspondence until the death of the former.

In 1824, Moscheles, an eminent teacher and composer, was persuaded to undertake the direction of young Mendelssohn's studies. At that time he could play any thing that his teacher could perform, and he rapidly profited by the suggestions given him. Mendelssohn's parents did all in their power to aid him in perfecting himself in music; and his home was ever genial to musicians. Notwithstanding Felix's attachment to music, he was not so completely absorbed in the study of his favorite pursuit as to entirely deny himself the pleasures of recreation common to youth. At seventeen he was known for his activity; he rode well, and was a good swimmer.

November, 1826, was a memorable period in the commencement of Mendelssohn's career. On the 19th of that month he produced, for the first time, the overture to "A Midsummer Night's Dream," as a duet for the piano-forte. On this occasion his sister Fanny assisted him; and that composition did much toward giving him an enduring name. That production was followed by many others of great merit. At the solicitations of Moscheles he consented to visit London, where he was warmly welcomed. It is said that after England had sounded loudly his praises on this occasion, Germany began to appreciate the talents of her noble son.

In 1830, by the advice of his teacher, Mendelssohn traveled in

* Pronounced Gæér'-te. He was the greatest modern poet of Germany, and the patriarch of German literature.

Italy, and spent some time with the greatest musicians at Rome. He now progressed rapidly, and became more and more appreciated as he became better known. Soon afterward he entered on that most brilliant career which ever so highly distinguished him, and won for himself so many ardent admirers and warm-hearted friends. In 1833 he was appointed director of the concerts at Düsseldorf. Ten years afterward he received the same office at Leipsic; thither young men of talent flocked from all parts of Europe to seek the acquaintance of the leading professor of the day, and to submit their own productions to his judgment. He afterward accepted the musical directorship at Berlin at the earnest entreaty of the King of Prussia; but after a short time he resigned it and returned to his favorite Leipsic, where he continued to conduct concerts until his death.

It would be pleasant to follow Mendelssohn through his most brilliant achievements, now that we have taken a brief view of his early life; but we have only time to name a few of his master productions, and then take a glance at the close of his life. Among his compositions none are more widely known, or are deserving of higher commendation, than his oratorio of *Elijah*. Besides this, his oratorio of *Paulus*, his overture to "Midsummer Night's Dream," his powerful choruses for "Antigone," "Athalia," and others, all combine to form for him an enduring monument of genius.

Early in 1847, Mendelssohn returned to Frankfort, to his own family. His health was feeble; his physicians had forbidden his playing in public; and now, too, he was called to mourn the sudden death of his sister Fanny. Her death was almost instantaneous. She was listening to a rehearsal of the choruses of *Faust*—a subject which she had selected for her own musical compositions—when she sunk lifeless upon her seat. When her brother received this sad intelligence he uttered a piercing cry of anguish. He had loved her in no ordinary manner. They had composed together as children, and in riper years, also. So mutually and so constantly had they communicated their ideas on musical subjects, that each availed himself or herself of what they had thus made common property. Indeed, among their early written songs it is not known which were written by the sister and which by the brother.

After this sad event Mendelssohn's physical powers rapidly declined. His last composition was produced on the 9th of October, 1847. It is said that while composing it he constantly thought of his deceased sister. On hearing a friend sing it he turned pale, was seized with a fainting fit, and borne home in a state of unconscious-

ness. On the 28th of October he had partially recovered from this attack, and was able to walk with his wife. Shortly after this time the same fit seized him again, and he lingered on in partial consciousness for several days, and finally, on the 4th of November, he breathed his last. Seldom have expressions of public sorrow been so marked at the death of any artist in ancient or modern times. The general feeling might be compared to that on the occasion of the death of Raphael. As a man he was loved and esteemed by all, and it is not too much to say that he had not an enemy in the world.

FALSE EMPHASIS.

ALL know how great a difference there is between written and spoken eloquence, between the poetry of the printed page and the same poetry when kindled into life by the melodious voice, the eloquent eye, and the impressive gesture. The one is the marble statue, pure, beautiful, but lifeless; the other is a living and breathing form, full of vitality and grace. The rapturous harmonies of a Handel or Beethoven may be turned to jarring discord in the hands of a bungling performer; so may the most sublime composition of the talented writer.

An improper emphasis or a vulgar pronunciation is often the single step which leads from the sublime to the ridiculous; and Ariosto is not the only one who has discovered this melancholy fact to his shame and sorrow. This Italian poet, we are told, used to recite his own poems with so sweet a voice, that his friends were enraptured to hear him. He possessed so delicate an ear, and so sensitive and choleric a temper, that once, on overhearing a potter reading some of his verses with a faulty accent, he became so enraged that he entered his shop, and proceeded to demolish the wares exposed for sale. In vain did the astonished tradesman expostulate at the violence of the stranger.

"I have not sufficiently revenged myself on thee," exclaimed the enraged poet, "I have only broken a few pots, and you have spoiled the most beautiful of compositions to my face." What poet, whom the world acknowledges as such, has not endured a thousand similar misinterpretations?

Mozart once wrote a composition entitled a "Musical Joke," some portions of which were underscored precisely as a poor performer

would play them. The effort is of course highly ludicrous, but not more so than would be a page of Everett or Longfellow, if printed as an indifferent reader would render them. There are few really good readers among us, and even those who are most accustomed to public speaking are often sadly deficient in this accomplishment.

There are many queer examples of false emphasis, as well as those showing the power of emphasis—and the reader should learn to appreciate this power—that we hear almost daily. The following will illustrate this subject :

“Do you imagine me to be a scoundrel, sir?” demanded one man indignantly of another. “No,” was the reply, “I do not *imagine* you to be one.”

A careless reader once gave this passage from the Bible, with the following emphasis and pauses. “And the old man said unto his sons, saddle *me*, the ass ; and they saddled *him*.”

A clergyman once told his congregation that they “had not followed a *cunningly* devised fable.” The natural inference from his remark would be that he did not deny the fable, but only that it was not a *cunning* fable.

Another clergyman, noted for reading hymns with an abrupt emphasis, once uttered the word *bears* in the following lines so that it seemed to his congregation a noun instead of a verb.

“He takes young children in his arms,
And in his bosom *bears*—”

Many more examples of this kind might be given, but these will illustrate the subject, and we hope induce some attention on the part of those who read them on the importance of emphasis. These, of course, are extreme cases, but they will make a more permanent impression than would less striking ones.



THOUGHTS.—Thoughts are the aliment upon which the mind feeds. If they are kept pure, and in constant exercise, they impart health and vigor, and are like fertilizing currents running through the soul. There is one view respecting them which should awaken the greatest anxiety to have them under proper control. A simple thought, whether good or evil, will introduce other trains of reflection of a kindred nature.

THE WATER COLD.

THE flowers drink at the streamlet's brink,
 And the oak leaves drink the dew,
 And the songsters sing of the sparkling spring
 As they soar in the azure blue.
 Oh, the water cold, with its wealth untold,
 From the earth outgushing free,
 As it bubbles and sings from a thousand springs,
 Is the drink, the drink for me.

The sunlight sleeps where the rain king keeps
 His treasures uplaid in the sky;
 Or it bids a bow in its beauty glow,
 When the storm-sprite passes by.
 Oh, the water cold, with its wealth untold, etc.

We'll point to the spring as we join to sing,
 And repeat our pledge again,
 "All things we hate that intoxicate,"
 Is the burden of our strain.
 Oh, the water cold, with its wealth untold, etc.

Prairie Land.

A RUM-DRINKER CAUGHT.

THE *Dew Drop* tells an amusing story of a red-nosed man who entered a village store where rum was sold, and inquired for cheese. "Walk into the other room and select one for yourself," replied the accommodating shop-keeper. The man passed on, selected his cheese, put it into his bag, returned into the front shop, and laid it on the counter.

"Some cold-water men who were present, however, becoming rather suspicious, determined to know what kind of cheese the man kept. Accordingly one of them managed so to move the bag that it fell to the floor, when lo! the *cheese* broke and the glass rattled. The red-nosed man looked white, the white shop-keeper looked red. The cold-water men looked on for a moment to witness their confusion, and then departed, leaving the cheese dealer and his customer alone in their glory.

"We would advise those who patronize such cheese shops in future, to take something better than a glass bottle to get their cheese in."

Youth's Department.

WHICH IS THE BETTER WAY?

BY ANNE P. ADAMS.

I WISH our old teacher, Mr. Newman, would come back," said Charles Duncan to his friend, Robert Rose, as they walked leisurely home from school.

"Why so, Charles? Don't you like Mr. Willard?"

"Yes, I like him well enough. For some reasons I like him better than Mr. Newman. But we don't get along half so fast with our studies under Mr. Willard."

"How can you think so, Charles? It seems to me I have learned more in one month since Mr. Willard has been our teacher, than in any two months I was ever at school before. He makes us go over the same ground so many times, that we can't help remembering it."

"That is the very thing I object to, Robert. I hate to be drilled on the same thing forever. I believe in progress, and I don't think we make much in school at present. If Mr. Newman had stayed, we should have finished Arithmetic and begun Algebra before this time. But under the present administration we stand a fair chance to remain in Cube Root till doomsday."

"And I for one am willing to remain there till that time, if I can not conquer all the difficulties I meet sooner," said Robert. "I tell you, Charles, the only true way to make progress, is not to go over a great deal of ground, but to learn thoroughly what you do go over."

"Why, Robert, I thought you were ambitious."

"I am quite as ambitious as you are, Charles, and quite as anxious to advance rapidly in my studies. You will not be more glad than I shall be when we have finished Arithmetic and begun Algebra."

"Well, I suppose you will be glad, Robert; but don't you get tired of reviewing so much, and feel impatient to go-ahead?"

"Sometimes I do wish we could go on a little faster, but I know Mr. Willard's way is the best. I used to feel just as you do, Charles, I wanted to 'go ahead.' I thought if I could 'go through a book,' as we call it, and get a smattering of its contents, it was all that was necessary. The more studies I had, the better I was pleased, I thought I was accomplishing so much. But the truth is, as I after-

ward discovered, I was gaining but a very superficial knowledge of any thing. It was just the same with my reading. I read every thing that came in my way, and prided myself upon the number of books I read through in a given time. Now I do not read *so much*, but I remember *more*, for I make it a point to pass over nothing that I can not understand, and never to lay down a book until I have pretty fairly mastered its contents."

"Why, Robert, you will never know any thing at that rate."

"I think I *shall* know something, Charles, if I persevere. I have the example of some very learned men to encourage me. I remember two of whom I read last winter. One was Eugene Aram, a Yorkshireman. He was sent to school only long enough to learn to read a little English, and after that had no more instruction. But he educated himself, and so thoroughly, that it is said there was scarcely any part of literature with which he was not well acquainted.

He mastered a great many languages, and the way in which he did it was this: He first took a Latin grammar, and committed it to memory from beginning to end. He then divided it into portions, so that three times every week he repeated the whole of it, and this he continued for years. Next he took a Greek grammar, which he learned in the same way. Then he began to read the Latin classics, and once spent a whole day in rendering five lines. He made it a rule never to leave a passage till he thought he fully comprehended it. After reading every one of the Latin classics, historians, and poets, he took up the Greek Testament, and parsed every word he read. Only think, Charles, what tedious labor this!

"The other learned man was a native of Switzerland. He pursued a similar course. He never read a section without re-reading the one before it, nor a chapter or book without studying the preceding chapter and book a second time. After finishing the book in this way he read the whole again in course. Sometimes he spent three months on a single book. What do you say to that, Master Charles?"

"I say that my patience would never hold out to do so."

"It would be rather tedious at first, but if you should try it, you would soon be repaid by the benefit you would derive. I have to thank my cousin William for teaching me this more excellent way. I thought I knew more than he because I had studied more books. But the accurate knowledge he has of every thing he has learned made me thoroughly ashamed of the smattering I had acquired. I resolved that henceforth whatever I pretended to know I would know well, and that whatever I undertook to do I would do well."

"This may be very well for you, Robert, and for the learned men you have told me about. But I like my way best. You follow your course and I will follow mine, and we will see in a few years which of us is the most intelligent."

With this the boys parted. Charles, through the whole course of his education, skimmed over the surfaces of things, and the result was he knew a little of a great many subjects, but was not thoroughly conversant with any. He had read a great many books, but made the contents of no one of them perfectly his own. He could read a little in French, German, Italian, Latin, and Greek, but he did not feel at home in either language.

On the contrary, Robert, though his acquirements were less showy than those of Charles, was by far the most learned man. Both became lawyers. Robert carried the same spirit of patient investigation into his profession that had characterized him as a schoolboy. He studied carefully every case that was committed to him, and made himself perfectly familiar with all its bearings. But Charles, trusting to his intuitions rather than to his knowledge of the facts or of the law, frequently arrived at false conclusions. While Robert by slow but steady progress attained to the very front rank of his profession, Charles, though he sometimes made a brilliant effort, and astonished his friends by his flashes of genius, never rose higher than a second-rate lawyer.

"ONLY GIVE ME AN EDUCATION."

BY VESTA VIOLET.

REUBEN," said Farmer Hadley one morning to his son, "I suppose you expect to have that colt of Old Dobbin's as yours, don't you, as I gave the other one to Levi?"

"Well, I don't care much about it," said Reuben, "I had rather have the privilege of going to school, and then, with my horse money, have a library. I had rather have a few volumes of choice reading than all the horses in the universe, if that was to be my only portion."

His father looked astonished at this reply, and answered somewhat gruffly: "What on earth do you want to go to school any longer for? You know how to read and write now, and that is enough. I should

like to know, too, what you want to do with so many books? I see plainly you never mean to be good for any thing."

"I tell you, father, I mean to be a great and good man. I can earn my own living, too; only give me an education, and you will see that I shall not have invested my capital foolishly."

Farmer Hadley was one of those cold, calculating, money-loving men, whose one idea is to get money. As soon as he began to think over the matter, and think Reuben might gain wealth by his learning, he concluded to gratify him, for, thought he, "I see he is always possessed to have a book in his hand, and he never will be good for any thing on the farm."

So he was sent to school, and from thence to college; subsequently followed school-teaching a while, and then became a minister of the gospel, and is now employed by the Home Missionary Board to preach in one of the Western Territories; and Farmer Hadley, in spite of his prejudice against books and book learning, feels proud of his son Reuben, and when he gets the warm, full letter of what his son is doing, the tears will roll down his withered cheeks, and he blesses God that he ever gave him so noble a boy.

Alas! for Levi. His choice was a different one; he did not love his school nor books. He commenced early to trade; at school he would trade knives, and toys, and tell stories in order to make good bargains. His mind was on every thing but learning. He rejoiced over the colt that his father gave him; but no sooner did he have the control of it than he traded it away, and traded again and again, till finally he sold out to one of his worthless companions, who ran away and never paid him for it. Thus his treasure was gone. If it had been an education, he could not have lost it so easily.

Soon after this he married, and commenced life for himself. His father gave him five hundred dollars to start with, and as he was always a hard worker, and quick, he hoped he would do well. But he had formed habits that kept constantly undermining his little means, and he found that his purse leaked out all that it accumulated, and he was obliged to get in debt. He still loved to frequent places where the idle, vicious, and intemperate meet to waste their precious moments. And here, after toiling hard all day, he would spend his evenings, leaving his wife lonely and cheerless at home, wondering where he staid so long. These habits grew upon him; he loves the drink that intoxicates, and often comes home reeling. His money is wasted, and what is he? Which of these would my little readers choose to follow?

A CHASE WITH THE BREEZE

BY MRS. E. M. GUTHRIE.

Oh dance away, dance away, musical Breeze,
 As in at my window you leap from the trees!
 Then drive out the close air, and fill up my room
 With morning's sweet breath of exquisite perfume;
 Kiss gently my brow as you hasten along,
 Your wings heavy laden with voices of song;
 I know by your breath you've been searching my bow'er,
 And stealing the dews from the fresh budding flower!
 But she will forgive you, sweet Breeze, I am sure—
 You've shed o'er her bosom a spirit so pure.
 Then dance away, dance away, filling my room
 With morning's sweet breath of exquisite perfume!

Dash open my books now, and search every leaf;
 Make light of philosophy, ethics, and grief,
 Blow newspapers up with your joking tirade,
 And cast their fine eloquence "into the shade;"
 Yes, come with the peach-blossoms starring your wing,
 From the young orchard trees where yellow-birds sing;
 Then scatter my scribblings and scraps on the floor,
 And drive them together all out at the door;
 Haste, haste with your burden on, on to the lee;
 Let it lie with violets waiting for me.
 And dance away, dance away, musical Breeze!
 But don't make so light of grave things, if you please.

Now wait, saucy Breeze, till I comb up my hair
 You played with so rudely in spite of my care!
 I'll on with my bonnet, I'm in for a race,
 Don't sport so, gay Breeze, at my trying the chase!
 Though you may outstrip me and light in the trees,
 I shall see your wild motions, merry young breeze;
 Shall hear the green foliage return your salute
 In voice softer, sweeter, than bugle or flute;
 I shall see the blue sky, shall breathe the free air;
 Then wait awhile, Breeze, till I fasten my hair;
 And dance away, dance away, child of the Dawn,
 As on I bound after you over the lawn.

ROCKTON, ILL.

THE mind has more room in it than most people think, if they
 would but furnish the apartments.

Microscopic Views.—No. 3.

SEEDS AND SAND.

BY UNCLE GEORGE.

FROM the damp grounds about the spring, Willie has brought us some rushes, with pine-like leaves radiating, as the spokes of a wheel, from the stem, which is grooved like a fluted column. This rush is known commonly as the 'Horsetail.' It is in bloom now, or what you may call its blossom, for seed and blossom seem to be the same thing with it. Willie, just shake your horsetail plume over this glass slide, and we will see what follows—there, I will throw the sunlight pretty strong on the object; what do you see?"

"See! why, why! Ten thousand spiders all fighting in one heap."

"You start in a way to justify your extravagant statement. Jennie, try your sober fancy at a description."

"Indeed, Willie's notion is not very wide of the mark, as it seems to me. The convulsive action of the several long threads attached to the seeds, twisting and untwisting, makes an appearance very like life."

"Oh, how they writhe! What are they all, Uncle George?"

"Don't be alarmed, Fanny; they are only the seeds of this rasp-like rush; and those long fibers, I presume, are a contrivance of Nature to get them scattered. They coil about one another, and whatever they come in contact with, and the seeds are thus carried to their destined places. What has my little friend Johnny in his hands?"

"Some brakes, uncle, that have strange little eggs all about the side of the leaves. See, there are two rows of them set right along against the veins of the leaf."

"Eggs, Johnny? And you've gone and *broke up* the nest!"

"No, Willie, the nest was a *brake* itself; but I wonder what sort of creature laid its eggs upon the *bottom* of a leaf! Will you please to put them on the glass? maybe they'll look curious."

"Ho, Fanny, if you wish to see how a little egg will look magnified, you can look at a goose-egg."

"Not so fast, Willie; there are many very curiously shaped eggs, round, and oval, and fluted, and flower-carved, and even *square*; so

a goose's egg will hardly pass for the magnified type of all eggs. But these are *not* eggs on the fern leaf; they are its natural seed, and quite curious, as you will see."

"Curious enough, I should think, for seeds to grow on the leaf; and, oh, how very funny they are! why, they are school globes, with a meridian circle all marked off into degrees, only I don't see any figures to number them."

"And how do *you* find them, Johnny? Ha, what makes you start so?"

"I could't help it, Uncle George; there was a great ball tied round with a big stout rope in there, and when the sunshine struck it, it burst right open for all it was tied so tight."

"Well, boy, look again, if you can get one eye shut after opening both so wide."

"Ah, yes, and there it is in two beautiful cups, one above the other, and every thing is spilled out of the upper one. What is it?"

"The seed-cup of the fern is divided into two hemispheres, each fast to the jointed-looking band which surrounds them; when fully ripe, the globe bursts open, and scatters its seed broadcast. It is one of Nature's spring-guns, very curiously adapted to its purpose. I will increase the power of the microscope by this added lens, and let you see that fine dust which escaped from the exploded globe."

"And these are cups too, only see! these tops are scalloped like the profile of a flower with eight petals. How very curious and beautiful! The smallest particle seems organized into regular and beautiful forms. Can you show us the strange-shaped eggs you spoke of, Uncle George?"

"Not till we find them, Jennie. If you keep a sharp look-out on the butterflies and millers and moths that flit about the grass, you may discover the lodging-place of some of the variegated forms of their eggs. Till then, let us amuse ourselves with what offers, and first with this little pinch of yellow sand from the seashore."

"Sand! that can hardly have any thing so fine as we have seen."

"There is no judging by the looks of what the dullest earth may contain; perhaps, like the character of a homely genius, the right kind of eyes will find this sand brilliant with a thousand glories."

"Brilliant indeed! Ah, how the dull dust cheated me! Here are diamond and emeralds and topaz stones, and the most perfect and polished shells I ever saw; look, Willie! the jeweled trees of the Arabian nights were not so rich."

"Oh, if I could keep them *so*. There is every color in the world here; and here are such crystals as the eyes never saw, and Fanny's parlor shelf has not half so many and so beautiful shells on it. Who ever imagined that such little things, as must have lived here, had such finished houses!"

"These are not the least of shell-fish. The minute skeletons or shells of animal-cule form a large part of the vast chalk cliffs of England, and are readily brushed out of common chalk, as I have shown you. Mighty mountains of solid rock are almost entirely composed of shells not a thousandth part of an inch in breadth; and the desert sand, that drifts far over the waters, has been found to be mingled profusely with the distinct and perfect remains of minute animals."

"We believe you, Uncle George; but folks not used to *little* things may think it is a great story."

"Yes, but when they know the *least* of things, they will trust the largest stories about such creatures."



SAND MAGNIFIED.



SHELL MAGNIFIED.

COURTESY OF A DOG.

BY DR. J. H. HANAFORD.

A FEW years ago, in a rural village of New England, there was a surly cur, the dread of all the smaller dogs in that vicinity. The *bristles* on his back, for such they resembled, were often raised as the smaller ones came into his august presence, and he looked exceedingly unpleasant whenever any thing ruffled his doggish disposition.

Who has not often seen boys that very nearly resemble this tyrannical "Tiger?" Who has not seen boys who invariably promote discord in every group they enter? In the very countenances of such, one might almost trace the peculiar features of "Tiger," and hear sounds very nearly resembling his growl. Like a surly cur, they quarrel with their associates, or are sometimes satisfied with provoking a quarrel among others.

But we must not lose sight of "Tiger." He was an ill-natured fellow, always ready to try his teeth upon any unfortunate dog of less size or courage than himself. He was so accustomed to growl and show his long, white, and sharp teeth, and worry all within his reach, that well-disposed dogs, and those that dreaded his inflictions, seemed to avoid the company of such an unpleasant playfellow, knowing by sad experience that it was unsafe to be caught by his *dogship*.

One day, a small, good-natured dog had occasion to pass near "Tiger," and fearing that he might receive the accustomed abuse, he hit upon the following expedient: he raised one leg, and went limping along on the remaining three, until he had passed out of sight of this dog-tyrant, when he put it down again, and ran off nimbly, apparently forgetting his feigned lameness. He seemed to feel certain that even his powerful enemy would not inflict his accustomed cruelties upon an unfortunate fellow-dog, and as a means of avoiding his vengeance deceived him by feigning lameness.

Though we can not approve the deception (for, in dog language, he said, "I have been hurt, and am lame"), we must feel amused at his shrewdness; and still more admire "Tiger's" sympathy for a *cripple*, for he seemed to understand that if some tyrant, like himself, had bitten the poor little fellow, that was enough, and it would be magnanimous in him to wait until he should recover before he treated him with his usual severity.

Now, young reader, what moral can we draw from this simple story? Is it not this, that *we* should be kind to the unfortunate? Dogs are not supposed to possess reasoning powers, or if they do possess them at all, only in a slight degree; and if *they* are restrained from cruelties by apparent misfortune, we, who possess a *soul* and feelings of generosity, kindness, and sympathy, should "deal gently" with those on whom the hand of affliction has been heavily laid.

If, therefore, there is an orphan boy or girl among your associates, remember to be kind to such, and soothe the sorrows of those who have been deprived of their dearest friends on earth. If one is deformed, do not laugh at or ridicule such an unfortunate fellow-being. If one has an intemperate father, or is poor, not able to appear *externally* as well as his associates, never increase his sorrows by thoughtless words, but comfort and encourage him, for he is responsible only for his own conduct. If one is *lame*, remember how "Tiger's" feelings were *softened*, and be equally kind and sympathizing.

Never delight in inflicting cruelty upon any one, not even the most insignificant reptile beneath your feet, but step aside rather than destroy any creature unnecessarily that your heavenly Father has created to enjoy life. But on the contrary, cultivate a generous and loving heart, be pitiful and kind to all, "weep with those that weep," and do good to all around you.

THE BROWN MARTIN.

BY ADA.

WHEN winter had fled, with its cold stormy hours,
And spring first appeared, with her green leaves and flowers,
There came a brown martin to visit our home,
And we pitied the stranger, he seemed so lone.

Then we built him a house, 'twas convenient and good,
Though unthatched was the roof and unvarnished the wood;
We brought from the forest a tree that would bear
The home of our martin aloof in the air.

Then so quickly he fled that we feared he had gone,
And gazed with a tear on his desolate home,
But when morn's dewy foot on the earth had been pressed,
He returned with a mate that would share his warm nest.

And so tuneful's their song, and their twitterings so sweet,
That our care is repaid for their homely retreat;
For though dusky their coats they're so happy and kind,
We will strive from the martins a moral to find.

Words which are spoken in as gentle a tone
As notes of the martin will find us a home,
And friends to love us wherever we roam.
If never we're selfish of sweetmeats or toys,
But kindly divide them with other good boys,
The sharing them freely will double our joys.
And the favors received, let's return them again,
Or give our best thanks, lest we find to our shame
That the martin hath gratitude taught us in vain.

BOONVILLE, IND.

THERE is one kind of vice which even bad persons shun, that is ad-vice.

THE PENITENT SCHOLAR.

SCHOOL is out. The last lesson has been recited and the evening hymn sung, and the shouts of merry voices are heard on the green. Their spirits overflow like long pent-up waters. But one of their number remains behind. All is quiet now in the school-room. There sits the teacher at her desk, with a sad and troubled look.

At one of the desks before her sits a boy, whose flushed countenance and flashing eye tell of a struggle within. His arms are proudly folded, as in defiance, and his lips are compressed. He will never say, "I'm sorry, will you forgive me?" No! not he. His breath comes thick and fast, and the angry flush upon his cheek grows a deep crimson. The door stands invitingly open. A few quick steps, and he can be beyond the reach of his teacher. Involuntarily his hand snatches up his cap, as she says, "George, come to me." A moment more and he has darted out, and is away down the lane. The teacher's face grows more sad; her head sinks upon the desk, and the tears will come, as she thinks of the return he is making for all her love and care for him.

The clock strikes five, and slowly putting on her bonnet and shawl, she prepares to go, when, looking out at the door, she sees the boy coming toward the school-house, now taking rapid steps forward, as though fearful his resolutions would fail him; then pausing, as if ashamed to be seen coming back. What has thus changed his purpose?

Breathless with haste, he has thrown himself down upon the green grass by the side of the creek, cooling his burning cheeks in the pure, sweet water; and as gradually the flush faded away, so in his heart died away the anger he felt toward his teacher.

The south wind, as it stole by, lifting the hair from his brow, seemed to whisper in his ear, "This way, little boy, this way," and voices within him murmured, "Go back, go back." He started to his feet. Should he heed those kind words—should he go back? *Could* he go? Ah! here was the struggle. Could he be man enough to conquer his pride and anger, and in true humility retrace his steps, and say "forgive?" Could he go back? As he repeated the words he said to himself, "I *will* go back;" and the victory was won. Soon, with downcast eye and throbbing heart, he stood

before his teacher, acknowledging in broken accents his fault, and asking forgiveness.

The sunbeams streamed in through the open window, filling the room with golden light, but the sunlight in those hearts was brighter yet. Ah, children, if you would always have the sunlight in your hearts, never let the clouds of anger rise to dim your sky.

He was a hero. He conquered himself; and Solomon says, "He that ruleth his spirit is better than he that taketh a city." At first he cowardly ran away; but his courage came again; he rallied his forces, and took the city. Brave is the boy that has courage to do right, when his proud heart says I will not.—*New York Observer*.



A BIRD CHARMED BY A SQUIRREL.

THE following singular occurrence is related by a correspondent of the *New York Spirit of the Times*, writing from Broad Mountain, Pa. :

"While running a survey line some eight miles from here, my attention was attracted by the vociferous barking of a red squirrel, and on looking for him, I saw the individual himself on a hemlock tree, about twenty feet from the ground, jumping about, barking, and flirting his tail. On the same limb, about six feet from him, sat a swamp or spotted thrush, looking decidedly frightened and bewildered, for whom, it appears, all these particular attentions were designed.

"Well, matters stood thus for some minutes, the squirrel getting nearer, and the bird appearing more and more confused, when Bunny, having barked himself hoarse, thought it was time to make a grab, which he did accordingly. The struggle of the bird, however, threw them both off the limb to the ground, where the squirrel killed the thrush in a short time. He then hauled the body to a log, and, after due examination, was beginning deliberately to pull out the feathers in mouthfuls, when one of the chain-men knocked the carnivorous little animal over with a stone. He was not killed, however, but only stunned, and has since recovered, and we have him caged and hung up in the office as a curiosity.

"He is very savage, and it was but yesterday that he came off first best in a fight with a young rat terrier, of undoubted pluck, belonging to one of the party. I now wish that we had let him alone, to have seen whether he would have eaten the bird, though I have no doubt that such was his intention."

Children's Department.

LITTLE KINDNESSES.

"Tis sweet to do something for those that we love,
Though the favor be ever so small."

BROTHERS, sisters, did you ever try the effect which little acts of kindness produce upon that charmed circle we call home? We love to receive little favors ourselves; and how pleasant the repetition of them makes the domestic circle! To draw up the arm-chair and get the slippers for father, to watch if any little service can be rendered to mother, to help brother or assist sister, how pleasant it makes home!

A little boy has a hard lesson given him at school, and his teacher asks him if he thinks he can get it; for a moment the little fellow hangs down his head, but the next he looks brightly up, "I can get my sister to help me," he says. That is right, sister, help little brother, and you are binding a tie round his heart that may save him in many an hour of dark temptation.

"I don't know how to do this sum, but brother will show me," says another little one.

"Sister, I've dropped a stitch in my knitting; I tried to pick it up, but it has run down, and I can't fix it."

The little girl's face is flushed, and she watches her sister with nervous anxiety while she replaces the "naughty stitch."

"Oh, I am so glad!" she says, as she receives it again from the hands of her sister all nicely arranged; "you are a good girl, Mary."

"Bring it to me sooner next time, and then it won't get so bad," says the gentle voice of Mary; and the little one bounds away with a light heart to finish her task.

If Mary had not helped her, she would have lost her walk in the garden. Surely it is better to do as Mary did than

to say, "Oh, go away, and don't trouble me;" or to scold the little one all the time you are performing the trifling favor.

Little acts of kindness, gentle words, loving smiles, they strew the path of life with flowers; they make the sunshine brighter and the green earth greener; and He who bade us "love one another," looks with favor upon the gentle and kind-hearted, and he has pronounced the meek blessed.

Brothers, sisters, love one another, bear with one another. If one offend, forgive and love him still; and whatever may be the faults of others, we must remember that, in the sight of God, we have others as great, and perhaps greater than theirs.

Be kind to the little ones; they will often be fretful and wayward. Be patient with them, and try and amuse them. How often a whole family of little ones are restored to good humor by an elder member proposing some new play, and perhaps joining in it, or gathering them round her while she relates some pleasant story!

And, brothers, do not think because you are stronger, it is unmanly to be gentle to your little brothers and sisters. True nobleness of heart and true manliness of conduct are never coupled with pride and arrogance.

Nobility and gentleness go hand in hand; and when I see a young gentleman kind and respectful to his mother, and gentle and forbearing to his brothers and sisters, I think he has a noble heart.

Ah! many a mother's and many a sister's heart has been wrung by the cold neglect and stiff unkindness of those whom God has made their natural protectors.

Brothers, sisters, never be unkind to one another, never be ashamed to help one another, never be ashamed to help any one, and you will find that though it is pleasant to receive favors, yet it is more blessed to give than to receive.

—*Sunday School Advocate.*

If we would get wisdom, we must do as the chickens do when they feed—pick up a little at a time.

"WHAT O'CLOCK IS IT?"

WHEN I was a young lad, my father one day called me to him that he might teach me to know what o'clock it was. He told me the use of the minute-finger and the hour-hand, and described to me the figures on the dial-plate, until I was pretty perfect in my part.

No sooner was I quite master of this additional knowledge than I set off scampering to join my companions at play.

"Stop, William!" said he, "I have something more to tell you."

Back again I went, wondering what else I had got to learn, for I thought I knew all about the clock as well as my father did.

"William," said he, "I have taught you to know the time of the day; I must teach you how to find out the time of your life."

All this was strange to me, so I waited impatiently to hear how my father would explain it; for I wanted sadly to go to my play.

"The Bible," said he, "describes the years of a man to be threescore and ten, or fourscore years. Now, life is very uncertain, and you may not live a single day longer; but if we divide the fourscore years of an old man's life into twelve parts, like the dial of a clock, it will allow almost seven years for every figure.

"When a boy is seven years old, then it is one o'clock of his life; and this is the case with you. When you arrive at fourteen years old, it will be two o'clock with you; and when at twenty-one years, it will be three o'clock; at thirty-five it will be five o'clock; at forty-two it will be six o'clock; at forty-nine it will be seven o'clock, should it please God to spare your life.

"In this manner you may always know the time of your life, and looking at the clock may remind you of it. My great-grandfather, according to this calculation, died at twelve o'clock, my grandfather at eleven, and my father at

ten. At what hour you or I shall die, William, is only known to Him to whom all things are known."

Never, since then, have I heard the inquiry, "What o'clock is it?"—nor do I think I ever looked at the face of a clock—without being reminded of the words of my father.
—*Day-Star.*

SCHOOL DIALOGUE.

These lines were composed for four little school-girls, who recited them at a school examination at Jackson Valley, Pa. The scene represents the scholars' play-ground.

SARAH.

Mary, don't you love to join
In merry games at play?
I'm sure I'd like it in the morn,
And through the livelong day.

MARY.

I'd rather roam throughout the fields,
In nature's lovely bowers;
Or roam amid the wild-wood walks,
On paths all strewn with flowers.

I'd weave myself a floral wreath
Of blossoms rich and fair,
With myrtle mixed with violet
Entwined within my hair.

ANNE.

O yes, my lovely sisters, yes,
This would be sweet, 'tis true,
How truly you'd enjoy yourselves,
And I'd go with you too.

And once I saw a happy group,
Who met upon the green,
Adorned with flowers rich and fair;
It was a lovely scene.

ESTHER.

Mary, don't you love your school?
I'm sure that I can say

I'd rather learn my books in school
Than run about all day.

And as our teacher loves us
We should make this return;
Our parents too have sent us
Away to school to learn.

And then I know they're wiser,
And know what's best to do;
I'm sure 'tis better for us;
Girls, don't you think so too?

MARY.

Why, to be sure, Esther, dear,
I did not mean to say
I'd like to leave my pleasant school
To "run about all day."

ANNE.

I'm sure we have forgot ourselves
Here talking all this time;
We must away to school I see—
O dear, 'tis almost *nine*.

SARAH.

Come, let us all be there in time,
And never break the rule,
We'll join in heart and join in hand;
Away, away to school.

ELLEN.

Editor's Table.

READING IN SCHOOL.

THE subject of reading in school has occupied much of our attention during the past ten years, and though we have said much about it, there is still much more to be written. We hope the time is not far distant when even the increasing attention now bestowed upon reading shall become more universal in its diffusion, and more practical in its applications. In our readings we came across the following excellent thoughts on this subject, which we will take the liberty of repeating here. Their authorship is unknown to us.

"The thought must have occurred to those in the least degree familiar with the mechanical hum-drum method of teaching reading in our common schools and academies, that a reform is imperatively called for. It is the office of the school to teach not only the meaning of punctuation marks, the proper inflections and intonations, the distinct enunciation and correct emphasis of words, and the blending of all these into a clear, forcible style of reading, but to form in some manner a literary taste; to turn the attention of the scholar to the beauty of thought as well as to its outward form, and to implant in the young mind right principles. These two purposes of reading should never be separated in the mind of the teacher, and class books should be arranged with this in view. While this is true in the earliest stages of the child's progress in the art of reading, it is many fold more important as the mind advances in culture and maturity.

"If the reading exercise is dull and monotonous, if it does not call out some thoughts, and awaken some interest in the scholar, it soon becomes a formality to be gone through with, a task to be performed, and fails to educate the mind or even to cultivate the vocal organs. When a mind is thoroughly imbued with a thought, when it catches the inspiration of truth, there is no hesitation as to how the thought should be expressed; it will express itself truthfully and well. We regard it as self-evident that when the scholar has been roused to activity, been made to feel that he has a direct individual interest in the subject-matter of his reading, an immediate benefit to derive from it, the great point in good reading has been gained. We do not intend to say that no rhetorical rules are necessary, but only that a knowledge of these alone will never make one an effective, polished reader.

"Another consideration is here worthy of notice. Before the scholar leaves the school for the active duties of life, a literary taste must, as a general rule, be formed, and its character determined. If the teaching has been such as to lead the mind to appreciate the beauties of sound thinking and good writing, it will hereafter seek for companionship with the best authors, and will go on to educate itself. If, on the contrary, no correct taste has been acquired, books are thrown aside as a weariness, and with the close of school days terminates all intellectual effort, all literary spirit.

"Physiologists tell us that coloring matter mixed with the food of an animal will diffuse itself throughout the whole system and give its tint even to the bones. So with reading, the mental aliment. It gives color to the very constitution of mind, hue and complexion to thought, and leaves its traces in the intellectual, moral, and social life. *What* the scholar reads in schools and elsewhere, and *how* he reads, are matters which involve weighty consequences.

"Two serious difficulties are in the way of the proper elevation of the standard of reading in our schools. The first is the incapacity of the great mass of teachers, the want of refined taste and that culture which an extensive and thorough reading of the best authors alone give. The second, the imperfection of the Readers made use of. The pedagogue whose thoughts never range beyond the covers of his text-books, whose clumsy hands never remove the husk which covers the living germ of truth; whose eye can not see, and whose mind can not appreciate the principles which underlie all science, can not teach any thing rightly, much less can he form the young mind to correct habits of thought, and lead it to the pleasant vales and mountain heights of literature. Again, a teacher of cultivation and taste can do comparatively little unless he can place in the hands of his scholars such reading as is calculated to elevate and refine, and then placing himself on a level with them, discover for them the beauties of thought, and hold them up to admiration."

One of our chief aims through the columns of *THE STUDENT* is to inculcate these ideas, and at the same time to furnish a means for carrying them into practice, which does not exist when the pupils are wholly confined to the common reading books. It affords us much gratification to know that teachers are awakening up to the importance of this subject, and their responses come back to us, not only as words of encouragement, but as living witnesses to the correctness and practical benefits of these principles.

"I have long felt," says one who but recently saw *THE STUDENT*, "the need of something which would afford a *greater variety* of reading matter than is found in most school readers, and at the same time make the reading exercises more pleasant and instructive. This want, I am happy to find, is amply supplied by *THE STUDENT*. My scholars are much pleased with it, and derive much useful instruction from it."

A superintendent of a union school in Ohio writes: "The scholars are delighted with *THE STUDENT*, and the parents are much pleased."

Another says, "My pupils realize more fully than ever before the relation between school education and the affairs of life. *THE STUDENT* has a charming influence in awakening a new interest in their school exercises."

Hundreds of similar responses come to us from various parts of the country. Reader, if you are a teacher, and have not tried its influence in your school, take the advice of hundreds who have used it for years, and introduce it at once.

NEW YORK STATE TEACHERS' ASSOCIATION will hold its *ninth* annual meeting in Oswego, on the 1st, 2d, and 3d days of August. The exercises will commence on Tuesday, at 2 p. m. Addresses may be expected from Rev. G. W. Homer and W. D. Huntley, of Buffalo; Horace Greeley and D. H. Cruttenden, of New York; James Johannot, of Syracuse; J. W. Taylor, of Albany, and others.

We understand that arrangements have been made with the railroad companies to furnish tickets to those attending this convention to go and return for the fare one way.

Our Museum.

JULY, the seventh month of our year, was the fifth month of the old Roman year, and was then called *Quintilis*. It afterward received the name of July in honor of Julius Cæsar, who reformed the calendar in such a manner that this month stood as it does now with us, the seventh in the year. On the first of this month the sun is at its apogee, or greatest distance from the earth, being 96,768,000 miles, or more than 3,000,000 miles farther from us than on the first of January.

The planet Mercury is now an evening star, but sets about fifteen minutes past 8 o'clock P. M. Mars is also an evening star, and sets about 10 o'clock P. M. Jupiter will remain morning star until July 15, and then become an evening star. Venus and Saturn are each morning stars.

FIVE VOWELS IN ONE WORD.—The five vowels are found in alphabetical order in the words *abstemiously* and *facetiously*.

MUSICAL TASTE IN CHINA.—There are upward of five hundred journals in China consecrated exclusively to the musical art, and almost all the considerable capitals contain two or more theaters for operas.

NUMBER OF LANGUAGES.—There are three thousand six hundred and sixty-four known languages now in use in the world. Of these nine hundred and thirty-seven are Asiatic; five hundred and eighty-seven European; two hundred and seventy-six African; and one thousand six hundred and twenty-four American dialects.

LABOR OF HISTORIANS.—The historian Gibbon was twelve years in completing his "Decline and Fall of the Roman Empire," and Adam Smith occupied ten years in producing his "Wealth of Nations."

CORK is the bark of an evergreen oak, growing principally in Spain, and other countries bordering the Mediterranean. The bark has attained a thickness and quality suitable for manufacturing purposes when the tree is about fifteen years old. It is then stripped at intervals of eight years.

LAWS IN CHINA.—In China the law regulates every thing. Even ladies must dress according to the statute. No man must dare to notice the varieties of temperature before his superiors. The governor of a province lets its inhabitants know when it is cold enough for a change of costume, and when the signal is given by these functionaries, all China puts on its winter dress.

MINIATURE OAK.—If an acorn be suspended by a piece of cord within half an inch of the surface of some water contained in a glass, and permitted to remain without disturbance for a few months, it will burst, send a root into the water, and shoot upward a straight, tapering stem, with beautiful little green leaves. In this way a young tree may be produced on the mantle-shelf of a room, and become an interesting object. The chestnut will also grow thus, and probably other nut-bearing trees.

BRIDAL MARK OF THE JAPANESE.—At her marriage the teeth of the bride are made black by some corrosive liquid. The teeth remain black ever after, and serve to show that the woman is married, or a widow.

Answer to Puzzle in May number. "Remember thy Creator in the days of thy youth."

Answer to Enigma in June number. "Honour thy father and thy mother."

ENIGMA, from J. F. S., of Pennington, N. J.

I am composed of twelve letters.

My 4, 2, 1, 9, is a portion of the human figure.

My 10, 5, 8, is an evergreen tree.

My 1, 7, has struck with terror many a luckless swain.

My 6, 12, 1, is what all occasionally relish much.

My 11, 8, 5, is metal unrefined.

My whole is now before you.

Items and Events.

DURING the past month the news from Europe have not shown any marked change in the state of affairs. The war still proceeds between Turkey and Russia, and the Turks continue to be victorious.

NEW YORK CITY SUPERINTENDENT OF SCHOOLS.—Hon. Samuel S. Randall, who formerly held the office of Deputy State Superintendent of Common Schools for the State of New York, has now been chosen Superintendent of the schools of the city of New York.

RECENT DEATHS.

Mrs. EMILY C. JUDSON, better known to the literary world as Fanny Forster, widow of Rev. Adoniram Judson, for many years a missionary to India, died at the residence of her brother, at Hamilton, N. Y., on the 31st of May.

MADAME SONTAG, so widely known as a talented singer, died of cholera, in Mexico, on the 17th of June. She was born in Coblenz, Germany, on the 13th of May, 1805. In 1828 she was married to Count Rossi. During some revolutions a few years since they lost their property, and in 1852 she came to this country with her husband to retrieve their fortune.

JOSIAH HOLBROOK, so well known for his indefatigable educational labors, unfortunately met his death about the 17th of June, at Lynchburg, Va. He had been in that city for several months, occupied chiefly in geological and other scientific pursuits, to which he was enthusiastically devoted. It is supposed that while searching along the banks of Black Water Creek for geological specimens, he accidentally fell down into the creek and was drowned. His body was found on the 19th, in the creek, near the mouth of the Tunnel, at Lynchburg, Va. He had been absent from his boarding-house since the morning of the 17th. We have seldom known any person more ardently attached to his object than Mr. Holbrook. His plan was to simplify science to the capacity of youthful minds, and to interest them in its prosecution by practical and pleasant experiments. One of his plans was to interest schools in making exchanges of specimens of minerals, rocks, and other natural productions, also, to exchange drawings, etc. In this way many boys were stimulated to greater pursuits in science and education.

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VOL. IX.

AUGUST, 1854.

No. 4.

THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

N. A. Calkins, EDITOR.



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MAN'S DEVELOPMENT BY EDUCATION.*

BY HORACE MANN, LL.D.

ONE grand want of the human being in this world of ours, is the development of his mental faculties, with skill to use them. There are two ways of making the mind more powerful. The first is by improving the bodily constitution, or physical organization of the race, so that with more healthy bodies we may have stronger minds; and the second is, by giving all the skill and efficiency we can to such mind as there is; whether it be the miserable mind that belongs to a weak race, or the powerful mind that belongs to a strong one. The first is the work of physiology; the second, of education.

Of the necessity of mind, what need have I to speak? I might as well speak of the necessity of air to the bird's wing, or of water to the fish's fin. Almighty mind guides the universe. As to this earth, just in proportion to the development and culture of man's intellect, he participates in that guidance. Knowledge enables him to lay his hand upon the great machinery which God has constructed, and to direct its movements for his own benefit.

Hence, in order to be fitted for our present sphere, we need mind, the clear-shining and far-shining of the luminous intellect. * * * Mind is immeasurably more valuable than any form of wealth. For one such man as Arkwright, or Fulton, or Sir Humphrey Davy, the world could afford, if it had them, to give a hundred Californias. One such man as Whitney is worth more than all the Common Schools of New England ever cost. One such Christian patriot and statesman as John Quincy Adams, once in a hundred years, would reward all the bravery and pay all the perils of the Mayflower.

There is no increase of absolute truth in the universe, and there can be none. The number of minds that know truth may be indefinitely increased, but there can be no more truth to be known. All truth pre-existed in the Divine Mind. * * * The race knows vastly more now than it ever knew before, and will doubtless go on redoubling its stores. But He who was always infinite can not be more than infinite now. * * *

Ever since the creation of Adam, the heavens have been as full of starry glories as they will be to-night. The distant constellations

* Extracts from the Inaugural Address at Antioch College, situated at Yellow Springs, Ohio, of which the Hon. Horace Mann is President.

shot their arrows of light into human eyes as they do now. Why then were the power and glory of God so long belittled and vilified by the universal conviction that the sky arched itself but a few furlongs over our heads, and that all the wealth of the heavens, as was supposed in the time of Ptolemy, consisted in but a thousand stars? Why were the moons of Jupiter, the fluid rings of Saturn, the orbs of Uranus and Neptune, and the vast islands of light that move in their appointed spheres, through the immensity of space, whose beams with all their lightning speed are supposed to have been millions of years in reaching our earth—why were all these grandeurs and glories of Jehovah a nonentity to man?

There they stood, rank behind rank, in vaster circles, refulgent through all the ages as at present, a fit frontispiece to the volume of God's goodness and power; but human eyes beheld them not, and human hearts were not lifted up to God by their majesty and splendor. The race waited for the great minds that should lay open these starry depths of heaven. The minds came, the depths were laid open, and the celestial light blazed down upon us to attest the power and beneficence of the Creator, and again to make all the sons of God shout together for joy.

It is so in regard to all things. In all philosophies, in all theologies, in all principles of whatever kind, there are now just as many absolute truths in existence as there ever will be. There they exist, more valuable to man than zones of gold, sweeter in affections than unfallen Eden, sublimer than any Patmos yet revealed to man; and the problem which we have to work is, to prepare the men who can discover these more glorious truths, just as men prepared the telescopes by which the pre-existent stars were discovered. The truths whose shining faces no mortal hath yet seen are no less real, they will be no less freighted with blessings when they come than those by which we have been already gladdened and improved. But they lie beyond the frontier of our present knowledge, and therefore, as yet, are useless to mankind. * * *

Man wanted more labor than he could himself perform, and then, not by superior strength, but by superior mind, he domesticated and trained the animals, the ox for strength, the horse for fleetness. These were not enough, and so he enslaved his fellow-man. But intellect saw mightier powers in the elements than in any muscles of beast or slave; and now gravitation strikes our blows in the ponderous hammer, and steam cleaves the billows, or rushes across the land to bear our burdens or ourselves.

The winds once swept by the savage, useless as the fiery clouds they wafted on their bosom; but mind has trained them to bear the bark of the explorer to every part of the earth, and to waft the commerce of the world. The lightning once came only to terrify and blast; but now it executes costly embellishments in the shop of the artificer, and bears messages of intelligence and affection wherever the telegraphic wire is stretched. Man prepares and arranges a few wheels, and by His agents, of air and water and fire, God turns the machinery by day and by night, to supply our persons and dwellings with the fabrics of comfort and elegance.

To form the strawberry, the peach, or the grain of wheat, the elementary atoms of which they consist traverse continents, and come from every zone. By what we call the laws of chance, how few of these atoms would ever meet and mingle to form our nectarious fruits or our nutritious harvests! But the agricultural art summons its infinitesimal hosts—the mineral from the earth, the gases from the air, the water from the clouds, the light from the sky—leads them through all the subtle and mysterious channels of vegetable growth, and elaborates them into all the golden harvests of the year. What fullness of granary and storehouse, what freights for ship and car, come from agricultural knowledge—that is, from mind—where once the barrenness of earth and the barrenness of ignorance spread a common solitude. * * *

God's heart is full of new mechanical and new physical blessings for the race. He only waits for the fullness of time when physiology and education shall produce the *men* with talent and genius worthy to be the medium of their transmission to mankind. God knew the weight of the atmosphere and the law of gravitation; He saw this Western continent; He knew how books could be printed, how cloth could be woven by machinery, and how lightning would run through iron, as well in the time of Solomon and Socrates, as since; but, in the order of His providence, He waited for Torricelli and Newton, for Columbus and Faustus, for Arkwright and Franklin, before He blessed mankind by the bestowment of that knowledge.

In the same way He waits for us, through a knowledge of the laws of physiology and education, and an obedience to them, to rear the new men for the new blessings. Man's ideas of the earth are yet to be as much changed by chemistry as his ideas of the heaven have been by astronomy. Chemistry will yet beautify the earth as much as astronomy has glorified the heavens.

* * * * We have just got a foothold on the infinitude of God's knowledge and wisdom ; just trod upon the outer verge of his illimitable realms. No natural impediment forbids our turning what is now divine knowledge into human knowledge. We may ascend Pisgahs after Pisgahs, and enter Canaans after Canaans, yet forever see before us new Pisgahs to be ascended, and Canaans flowing with the milk and honey of a diviner wisdom to be made our own.

GOODNESS OF HEART.

BY HORACE S. RUMSEY.

THOUGH wealth take wings and friends prove false,
 And turn the shoulder cold,
 If dwelleth goodness in the heart,
 A pearl of price untold
 Is ours, which none may take away ;
 Oh ! cherish this rich gem
 Whose radiance is from above,
 A glorious diadem.

Though crowned with titles and renown,
 And place of high degree,
 If dwells not goodness in the heart,
 How poor indeed are we !
 Of all the destitute, forlorn
 Of earth, from pole to pole,
 Most abject, barren, dwarfed is he,
 With poverty of soul.

Then, noble youths, as ye go forth
 To reap the fields of lore,
 The best affections of the heart
 Oh ! cherish evermore.
 Admire the beautiful, the true,
 The heart make virtue's shrine,
 And let its tendrils lovingly
 Around the good entwine.

Its higher aspirations ye
 Should cultivate with care,
 Whose harvest is of joy and peace,
 And flowers of fragrance rare.
 Oh ! let the heart be watered well
 With dew-drops from above,
 So that its buds, when they unfold,
 May blossom into love ;

"Immortal Amaranth" become,
 With which the brow to twine;
 And he who wears this coronal
 A radiant star shall shine
 In the new firmament of God
 When the old hath passed away;
 How glorious, then, this crown to win,
 Which never knows decay.

ELMIRA, N. Y.

POLARIZED LIGHT—ITS UTILITY.

BY PROF. C. G. PAGE.

WHEN an isolated principle or truth, in any branch of science, is discovered, the question is immediately asked, *Cui bono? quid utile?* of what use is it? Franklin answered this question for all time by asking another, viz.: "What is the use of a new-born babe?" Of what use or importance to man was it that, in 1810, M. Malus discovered that the different sides of a ray of light are possessed of different properties in relation to the plane of its incidence? This is one of the most obscure of all scientific propositions, and yet we shall soon see how triumphantly the caviler is silenced, and how liberally even this little fountain has poured its treasures into the lap of art.

Without entering into the elucidation of the facts, we will enumerate them as they occur to us.

When glass is properly annealed, and of a good quality, it exhibits no change of colors when examined by polarized light. If the glass has not been properly annealed, the polariscope instantly detects the defect by the display of colors. The annealing of glass is expensive, and the manufacturer often slights this part of his work. Glass tumblers, pitchers, decanters, tubes, etc., not well annealed, break often upon the slightest scratch, or upon the sudden application of heat or cold. Glass tumblers will often crack when a piece of ice is left in them, and frequently break when set away by themselves, owing to some slight scratch which they might have received a week previous.

Following the directions laid down in treatises on polarized light, a few little plates of glass, or, what is better, a Nicol's prism and a piece of glass blackened on one side, will show the purchaser

whether he is buying annealed glass or not. The Nicol's prism, or eye-piece, is a simple apparatus, costing from one to ten dollars, and so small that it may be carried in the vest pocket without inconvenience.

If a piece of annealed glass be pressed or bent, the arrangement of its particles becomes disturbed, but this disturbance does not manifest itself to the eye nor to the most powerful magnifier. But when viewed by polarized light, the whole internal commotion reveals itself in the most beautiful manner, and while the pressure is increasing, disruption seems inevitable, though all the while to the naked eye no sign of fracture or change is apparent. A beautiful feature in this experiment is, that it shows exactly in what direction fracture would take place if the pressure were sufficiently increased. Taking advantage of this property, model bridges and other structures have been made of glass; and when submitted to strain or pressure, the polarized ray discloses to the architect what neither the unassisted eye nor calculation could ever discover.

The quality of gems for jewelry is determined by polarized light. The quality of sugars and of many articles of commerce, and of woven fabrics suspected of adulteration, may be proved by polarized light. When you enter a picture gallery you are often cheated of a good view of some painting by the strong reflection of light from the varnish, and you may not be able to select a suitable position. Look at the picture through Nicol's eye-piece, and all this reflected light is at once obliterated, and you have a good position anywhere. It is the same when specular reflections interfere with the sight in viewing a landscape, or any distant objects.

Last, and not least, the mariner often detects, even at a great distance, shoal water or sunken rocks, by the color of the water; but if the sun is shining, and the reflection from the waves is before him, he can see nothing to enable him to judge; and even a reef, under such circumstances, might be slightly above the water, without his being able to see it. The Nicol's eye-piece extinguishes all this reflected light, and gives him a clear view of what is before him. To hunters and anglers this property of the eye-piece is often very valuable.

For true splendor and variety the phenomena of polarized light surpass all others in the whole range of science. Without enumerating all the advantages resulting from the discovery of Malus, we think we have answered *Cui bono?* on this subject to his satisfaction.
—Selected.



WASHINGTON.

BY ORRIN P. ALLEN.

WHO can peruse the historic pages that recount the lofty deeds and heroic daring of Washington, without emotions of awe and reverence for the great chieftain who won our nation's independence, and bequeathed to us the legacy of freedom which we now so richly enjoy? Who can study the character of Washington without being made better and wiser? For in him were combined those elements that constitute true greatness; every new incident connected with the life of that truly noble man adds a brighter luster to his name. His pure character and unsullied patriotism far transcend the pomp and pageantry associated with imperial dignity.

Greece may boast of her Alexander, Rome of her Cæsar, and France of her Napoleon, but with a loftier pride may America exult in the time-enduring fame of her illustrious Washington. While the martial triumphs of those famed warriors dazzle the mind like

the meteor rushing across the midnight sky, the glorious deeds of Washington are like the bright star that beams ever on, undimmed by the flight of years.

In early life he laid the foundation of a lofty mind by rigid discipline. Even in youth he was known for that unbending integrity which was a noble characteristic of his eventful life. Nothing swerved him from the path of honor and rectitude. And such was the confidence reposed in him by his country, that when the dark storm of the Revolution burst upon our devoted land, he alone was deemed capable of directing its affairs in the gloomy hour of peril.

“There, like an angel form
Sent down to still the storm,
Stood Washington!
Clouds broke and rolled away;
Foes fled in pale dismay;
Wreathed were his brows with bay,
When war was done.”

Long, long indeed was the struggle for independence; thousands fell on the blood-stained field, fighting for their dearest rights; yet, through all the vicissitudes of that dark and gloomy “time that tried mens’ souls,” Washington remained undaunted, and cheered the desponding hopes of his soldiers by his example of fortitude and self-denial. At length the dark cloud of war rolled away, and the glorious sun of peace and prosperity smiled upon the young republic, established by the energy and perseverance of Washington and his worthy band of patriots.

At the close of the war, which encircled his brow with victory, the great hero presented the rare example of a man possessing almost supreme power, descending from his high station to the level of the private citizen. But the gratitude of a nation soon called him again from his retirement to preside over its destinies, which station he filled with honor to himself and to his country. Afterward he sought that retirement which he had cherished so long, and upon the banks of the beautiful Potomac he lived in the sweet enjoyment of that freedom for which he had toiled so devotedly. There, amid those quiet shades, made sacred by his ashes, he now calmly slumbers. But his memory, imperishable as the adamant rock, still lives, and will ever be cherished with veneration as long as America endures.

Now mark the career of Alexander, Cæsar, and Napoleon, the greatest conquerors, perhaps, the world has ever produced. The

haughty Alexander, who wept because there was nothing more for him to conquer, but his unsatiated ambition, ingloriously died in a scene of debauchery. The proud Cæsar, who swayed the iron scepter of Rome over a conquered world and dictated laws to vassal kings, died a violent death by the hands of his own countrymen. And the ambitious Napoleon, after having convulsed Europe with the discordant din of his triumphant arms, died in lonely exile on the gloomy isle of St. Helena, far from the scenes of his glory and greatness.

Thus they who filled the world with scenes of blood and carnage, and led forth their mighty hosts to battle for the love of conquest and self-aggrandizement, were humbled at last, even in the midst of their glory and power ; but notwithstanding the grandeur and extent of their conquests, in point of true greatness they can not be compared with Washington, whose highest ambition was to emancipate his country from the thralldom of oppressive rule, and his greatest solicitude the establishment of a free national government on a firm and solid basis. When that object was attained he retired to the quiet and peaceful scenes of rural life, and there, unsolicited, received the homage of a grateful people.

Youth of America, what a noble example is here presented for your contemplation ! Do you aspire to true greatness, and would you lay the foundation of a firm and enduring character ? Emulate the virtues of Washington, and be guided by the principles of honor and integrity that led him up the rugged heights of fame, and set his name, like a star of the first magnitude, amid the bright constellations of earth's illustrious heroes. You, too, may benefit mankind by your services and worthy examples.

ILL DO IT WELL.

THERE lives in New England a gentlemen who gave the following interesting account of a portion of his own life : He was an apprentice in a *tin manufactory*. When twenty-one years old he had lost his health, so that he was entirely unable to work at his trade, and wholly destitute of means. With this imperfect health he was thrown out upon the world to seek any employment for which he had strength. He said he went out to find employment with the determ-

ination that whatever he did he would do it *well*. The first and only thing he found that he could do, was to black boots and scour knives in a tavern. This he did, and did it well, as gentlemen now living would testify. Though the business was low and servile, he did not lay aside his self-respect, or allow himself to be made mean by his business. The respect and confidence of his employers were secured, as a matter of course, and he was advanced to a more lucrative and less laborious position.

The health of the young man was restored, and he returned to his legitimate business, which he now carries on very extensively. He has accumulated an ample fortune, and is training an interesting family, by giving them the advantages for moral and mental cultivation. The gentleman in question stands high among the givers to every benevolent object. It would be superfluous to say, though naturally very modest and retiring, he holds an elevated place in the community where he lives, and is to his minister what Jonathan was to David.

Young men who may chance to read the above statement of facts, should remember the secret of the above-named success. The man's *whole* character, of whom I have spoken, was *formed* and *directed* by the determination to do whatever he did *well*.

Poverty and servile labor are no disgrace when persons in these circumstances do not disgrace themselves by feeling that because they have inferior clothes and lower employment than others, therefore they need not be particular about their character. This is the mistake, the ruin of thousands. Do the thing that you are doing so *well* that you will be respected in your place, and you may be sure it will be said to you, "*Go up higher.*"—*N. Y. Evangelist.*

THE STUDENT'S GREETING,

FROM HILLBROOK GLEN.

FRIENDLY "Student," glad are we
Thy loved form once more to see;
Warmly we will bid thee come,
Welcome! welcome! to our home!

Longing hearts e'er wait to greet thee;
Eager hands oft haste to meet thee;
Thine approach is loved by all,
Thee, with earnest voice, we call.

Thine's the page of love and truth,
Thine's the sphere to teach the youth.
Noble work! and well fulfilled,
Pure the thoughts by thee instilled.

Wisdom on each leaflet lies,
Knowledge pure, which never dies:
Countless pearls thou dost unfold,
Heavenly gems, more worth than gold.

May God bless thy progress here,
Grant thee still a bright career;
Hallowed truths by thee be given,
Which shall lead young hearts to heaven.



A SUMMER DAY IN HAYING.*

BY BENJAMIN F. TAYLOR.

FIVE o'clock, and a summer morning! A few minutes ago I witnessed one of the most beautiful spectacles ever presented to mortal eye—the opening of the gates of day, and the sun standing upon the threshold, looking forth, like a prince in bright armor, upon his kingdom. The blue walls of heaven, built up in the heavy masonry of night, parted without a crash, nay, even without the soft and silken rustle of a curtain. The lights aloft were put out, one after another, to give effect to the scene; the gates of red gold swung back, noiselessly as the parting of soft lips in dreams, and a threshold and hall inlaid with pearl were disclosed.

There was a flash, a gleam, and a glow over the lake, and there paused the sun, as if enchanted with the scene he smiled on. A moment, and he stepped forth, but there was no jar; a moment more, and cloud, and wood, and hill were all of a glory. And there was song, sweetest song; the deep-blue heaven was full of voices of unseen birds, that fluttered at the pale portal of morning.

Five o'clock, and a summer morning! A silver mist hangs along the streams, a few downy clouds are afloat, and the landscape is heavy with dew. The cows turned out from the milking, are tinkling their way along the winding path to the woods; the robins are

* No one who has resided in the country, even though it were only in childhood, can fail to appreciate the beautiful and vivid picture here spread before him, of a summer day in haying. It is from "January and June," a work recently published by S. Hueston, New York.

calling to each other in the orchard, and an enterprising hen in the barn is giving assurance of an egg. Somehow the earth in such a morning looks as if it were just finished, the coloring not dry, the moldings not "set," and without a grave or a grief in it.

It is a good day for haying. Forth to the meadows go the farmer, with his workmen and the boys. A young barefooted commissary brings up the rear with earthen jug and bright tin pail. Much talk of wide swaths and "mowing round," with laugh and jest beguile the journey through the pasture to the field of labor. Coats and jackets are thrown off, and on moves the phalanx, with the steady step and sweep, amid the tall, damp grass. One bends to the scythe as if it were an oar, and pants on in the rear of his fellows. Another walks erect and boldly up to the grass, the glittering blade the while curving freely and easily about his feet. The fellow in Kentucky jean expended his strength in boasting while on the way to the field, and labors like a ship in a heavy sea, while the quiet chap in tow, that never said a word, is the pioneer of the field. On they move toward the tremulous woods in the distance: One pauses, raises his scythe, and you can hear the *tink-a-tink* of the rifle as it sharpens the edge of Time's symbol. Another wipes the beaded drops from his brow, and then the swath-notes blend again in full orchestra.

Ten o'clock, and a cloudless sky! The birds and the maples are silent and still; not a flutter or twitter in woodland or fallow. Far up in the blue a solitary hawk is slowly swinging in airy circles over the farm. Far down in the breathless pond sweeps his shadowy fellow. The long, yellow ribbon of road leading to the village is a-quiver with heat. "Brindle" and "Red" stand dozing in the marsh; the sheep are panting in the angles of the fences; the horses are grouped beneath the old oaks; "Lock," the faithful guardian of the night, has crawled under the wagon for its shadow, and now and then snaps in his sleep at the flies that hum around his pendent ears; the cat has crept into the leafy butternut, and stretched herself at length upon a limb to sleep; and even the butterflies, weary of flickering in the sunshine, rest, like full-blown exotics, on the reeds.

The children of a neighboring school came bounding down the slope in couples, the old red pail swinging between them; and the clatter of the windlass betokens "the old oaken bucket," already dripping up into the sun, with its brimming wealth of water. Twelve o'clock, and a breathless noon! The corn fairly curls in the steady blaze. The sun has driven the shadows around under the north

walls ; it has reached the noon-mark on the threshold, and pours its broad beams into the hall ; the morning-glories have " struck " their colors. The horn winds for dinner, but its welcome note surprises the mowers in the midst of the meadow, and they'll cut their way out like good soldiers, despite the signal.

Back we are again to the field ; aye, and back, too, upon the threshold of childhood. The angry hum of the bees just thrown out of house and home ; and the whistling quail, as she whirled timidly away before the steady sweep of the whetted scythes ; and the shout of the boys, as the next stroke laid open her summer's hopes to the day ; and the bell-tones of the Bob-o-links, swinging upon the willows in the " hollow "—don't you remember them all ?



CONVERSATION.

SURELY one of the best rules in conversation, is never to say a thing which any of the company can reasonably wish we had left unsaid.—*Swift*.

Conversation must and ought to grow out of materials on which men can agree, not upon subjects which try the passions.—*Sydney Smith*.

A companion that feasts the company with wit and mirth, and leaves out the sin which is usually mixed with them, he is the man ; and let me tell you, good company and good discourse are the very sinews of virtue.—*Izaak Walton*.

It is a secret known but to few, yet of no small use in the conduct of life, that when you fall into a man's conversation, the first thing that you should consider is, whether he has a greater inclination to hear you, or that you should hear him.—*Steele*.

Conversation is a traffic ; and if you enter into it without some stock of knowledge to balance the account perpetually betwixt you, the trade drops at once.—*Sterne*.

The most necessary talent in a man of conversation, is a good judgment.—*Steele*.

The wit of conversation consists more in finding it in others, than in showing a great deal yourself ; he who goes from your conversation pleased with himself and his own wit, is perfectly well pleased with you.—*La Bruyère*.



THE LEMUR.

THE accompanying engraving represents a singular animal found on the island of Madagascar. It belongs to the quadrumanous family, such as the baboon and monkey tribes, which it so much resembles in some characteristics that it has been designated as the Fox-nosed Monkey. Its feet have about the same similarity to the hands of a man as those of the monkey, but its intelligence is far less than those animals, and it is also without their prying, mischievous disposition. This species is very numerous, and appears to replace the monkey tribe in its native island. Some of them are known by the name of the "Great Galago."

The general form of the body of these animals is slender and

elongated, with a head shaped somewhat like that of a fox. Their average size is about that of a large cat, but they have longer limbs, and very long tails. They subsist on fruits, insects, and small birds. They are nocturnal, or twilight animals, sleeping by day, in a ball-like figure, perched on a branch of a tree. During the night they delight in active motion, climbing and hopping from bough to bough, with the dexterity of a squirrel.

These animals are gentle in disposition, and easily tamed. They are exceedingly frolicsome, and when tamed are very fond of being petted. Their ordinary voice is a low grunt, or clucking, but they often break forth into an abrupt, hoarse roar, which produces a startling effect. It is said that in their native forests they give roaring concerts, when several Lemurs break forth with their loudest voices at once, thus producing an astonishing volume of noise.

WANT OF CONFIDENCE.

AN excellent story is told of a Frenchman who loaned five thousand dollars to a wealthy merchant when the times were good, which happily illustrates the want of confidence and its consequences when hard times cause men to fail in business.

One day the Frenchman called at the counting-house of the merchant to whom he loaned his money, and manifested much agitation.

"How do you do?" inquired the merchant.

"Sick, ver sick," replied the Frenchman.

"What is the matter?" asked the merchant.

"De times is de matter."

"*De times*? what disease is that?"

"De maladie vat breaks all de merchants, ver much."

"Ah, the times, eh?" replied the merchant; "well, they are bad, very bad, sure enough; but how do they affect you?"

"Vy, monsieur, I lose de confidence."

"In whom?"

"In every body."

"Not in me, I hope?"

"Pardonnez moi, monsieur (pardon me, sir), but I do not know who to trust when all de merchants break several times, all to pieces."

"Then I presume you want your money?"

"Oui, monsieur (yes, sir), I starve for want of *l'argent* (money)."

"Can't you do without it?"

"Nò, monsieur, I must have him."

"You must?"

"Oui, monsieur," said the little Frenchman, turning pale with apprehension for the safety of his money."

"And can't you do without it?"

"Nò, monsieur, not von leetle moment longare."

The merchant took his bank-book, drew a check for the amount on the good old Chemical Bank, and handed it to his visitor.

"Vat is dis, monsieur?"

"A check for five thousand dollars which you loaned me, with the interest."

"Is it bon (good)?" said the Frenchman, with amazement.

"Certainly."

"Have you *de l'argent* (the money) in de bank?"

"Yes."

"And it is perfectly convenient to pay de sum?"

"Undoubtedly. What astonishes you?"

"Vy, dat you have got him in deese times."

"Oh, yes, and I have plenty more. I owe nothing that I can not pay at a moment's notice."

The Frenchman was perplexed, for he did not want to use the money, and now that he found it to be safe in the hands of the merchant, he wished him to keep it. Turning to the merchant again, he said, "Monsieur, you shall do me one little favor, eh?"

"With all my heart."

"Vell, monsieur, you shall keep *de l'argent* for me some little year longare."

"Why, I thought you wanted it."

"I no want *de l'argent*; I vant de grand confidence. Suppose you no got de money, den I vant him ver much. Suppose you got him, den I no vant him at all. *Vous comprenez* (do you understand), eh?"

After some further conference the little Frenchman prevailed upon the merchant to retain the money, and left the counting-house with a light heart, and a countenance very different from the one he wore when he entered it.

This little sketch has a moral which the sagacity of the reader will enable him very easily to understand.

Youth's Department.

LOBSTERS.

BY ANNE P. ADAMS.

"God has made nothing worthy of contempt."

"OH, Aunt Ellen," said little Louisa Stuart, running into the parlor where her aunt sat sewing, with flushed cheeks, and eyes much larger than usual, "Thomas has brought in the oddest-looking thing in the world in his market basket. Do come and see what it is!"

"I think I know what it is, dear, without going to look at it. I told Thomas to bring home a lobster for dinner."

"A lobster, Aunt Ellen! Is that horrid-looking creature a lobster? And are you really going to have it for dinner? I wouldn't taste of it for the world."

"My little niece is rather extravagant in her expressions, I think. When she sees the lobster nicely dressed, upon the table, she may find it hard to decline eating a piece."

"Oh, aunt, I am sure nothing could make me taste of it. When I saw it in the basket I was frightened, it is *such* a horrid-looking creature! Thomas wanted to show it to me, but I didn't want to see it; I ran away as fast as I could."

"That was very foolish, my little girl; it would have done you no harm. A lobster is a very curious object, though not, I grant, a very handsome one. Come and sit by me, dear, and I will tell you something about the lobster which will make you curious to examine the singular house he lives in, instead of running in terror from the sight of it."

"What do you mean, aunt, by the house he lives in?"

"I mean the hard, red shell which you saw."

"Is that his *house*? how queer!" said Louisa, her bright face expressing keen curiosity and interest.

"Yes, dear, that is really the house in which the lobster lives. And, like some very genteel families, he changes his habitation every year."

"Why, Aunt Ellen, how strange! Doesn't he grow to his shell?"

"Yes, and that is the reason for his throwing it off. He grows too large for it."

"Oh, his house is too small, and he goes into a larger one!"

"Exactly so. This change of habitation costs the poor lobster a great deal of pain, and subjects him to every kind of danger. He throws himself upon his back, and after a succession of convulsive movements, and swelling the body to an unusual size, the shell begins to divide, and is finally quite thrown off. And what is very curious, the animal seems to be turned inside out, for its stomach comes away with its shell. After this he is for some hours so weak and feeble that he remains quite motionless. Many lobsters die under the operation of casting the shell, it is so very painful, and hundreds of others are devoured by the codfish, dogfish, or other enemies, while in this defenseless state. For a day or two the poor houseless lobster is so weak that he takes no food, but at the end of that time the skin that covers his body has become nearly as hard as before. He shows signs of hunger, and the first delicacy that tempts his returning appetite is his *own stomach*, which he eagerly devours. It is said that sometimes he even eats his own cast-off shell. In about forty-eight hours the lobster's new house is as firm and substantial as the old one, and he is again fitted to defend himself from his enemies.

"When he has become settled in his new house, it is found, on comparing it with the old one, to be about one third larger, and one is puzzled to know how he managed to find elbow room in such close quarters. The lobster is not a very peaceable animal. In his frequent contests with his neighbors it is not unusual for him to lose a joint, or even a whole claw. But even this does not avail to amend his disposition. He retires vanquished from the field, and while his victor feasts at leisure upon his old claw, he waits patiently in some retired place for the growth of a new one. In about three weeks this becomes *almost* as large and strong as the old one. It never attains to the full size."

"Where do lobsters live, Aunt Ellen?"

"They live in the sea, and can live but a few hours out of it. Fishermen take them in what they call a 'pot,' made of wicker-work, into which they put the bait, and throw it into the sea where the water is from thirty to fifty feet deep. The greedy lobsters go into the pot to get the bait, and to their sorrow find they can not get out again.

"The shell is black when taken from the water, but turns red on being boiled. This explains a comparison made by Butler, an English poet, in a very witty poem he wrote, called "*Hudibras*." It was

quoted in the book your uncle was reading last evening ; perhaps you noticed it. It is this :

‘ Now had Phœbus in the lap
Of Thetis taken out his nap,
And like a lobster boiled, the moon
From black to red began to turn.’ ”

“ Yes, Aunt Ellen, I did notice it, and wanted to ask you then what it meant, but didn’t like to interrupt the reading. How very curious is what you have told me about the lobster ! I never saw one before, and I think I shall not be so silly as to be afraid of one again, for I shall know if it is red that it must have been boiled, and therefore can not hurt me. May I go now, aunt, and look at the curious house in which the lobster lives, before Bridget begins to prepare it for dinner ? ”

“ Yes, dear, and let what you have heard to-day teach you to look reverently upon every thing that God has made. The meanest thing in creation exhibits such perfection of workmanship and such wonderful adaptation to the end for which it was designed, that if you will but notice its structure and habits, you can not fail to admire the wisdom and skill of the Great Designer.”

INFLUENCE.

Drop follows drop, and swells
With rain the sweeping river ;
Word follows word, and tells
A truth that lives forever.

Flake follows flake, like spirits
Whose wings the winds disaveer ;
Thought follows thought, and lights
The realm of mind forever.

Beam follows beam, to cheer
The cloud the bolt would shiver ;
Throb follows throb, and fear
Gives place to joy forever.

The drop, the flake, the beam,
Teach us a lesson ever ;
The word, the thought, the dream,
Impress the soul forever.

—Anonymous.

Microscopic Views.—No. 4.

CUTTINGS OF WOOD.

BY UNCLE GEORGE.

HA, ha, ha! Willie, are you going to take a microscopic view of that bundle of sticks? Why, there are enough to heat the oven, if they were only dry!"

"Well, I should think so; why, boy, we don't want any fire this hot weather, and I think none of us are naughty enough to need such a display of rods, or good enough to be martyred with such a burden of fagots."

"Never mind, Willie, your fagots will serve to 'cherish the flame,' not of the oven, indeed, but of knowledge and pleasure, at which our merry girls here will be warmed up to another tune. Let me take first a little twig of this black birch, cut off the end squarely, and then with this very keen knife pare an exceedingly thin shaving across from bark to heart, and see if a bundle of wood contains no beauty but in flame, no utility but as fuel. Fanny, let those laugh who win! how does that seem?"

"Oh, glorious! how very, very rich! Lace-work done in polished silver, with such figures and finish as no patient nun ever wrought. I confess, Willie, that you have won, and this would pay for lugging a cart-load of timber."

"Jenny, how is this wooden lace-collar formed?"

"In the center are large round openings for a little way, and then long, solid-looking wavy bars run out toward the edge, like the ribs of a spread fan; between these, in the wedge-shaped spaces, are very small pores or holes, with larger ones at regular intervals along the line of three circles that surround the center, one outside of the other; and the whole field is dotted with minute dark specks that seem to cast a sort of rich brown tint over the silvery clearness of the wood."

"Very good; while Johnny admires it, I will tell you about it. The three circles are the three rings which mark the age of the twig. It was three years in growing, and the large holes on the inner border of the annual rings are the sap-tubes, or pipes, which were formed in the earlier part of the year, when heat and rain hurried forward the growth of the tree. Toward the end of the season the growth was slower, the pores were less, and the wood more solid, so preparing to resist the winter's cold, which would destroy

a vegetation so rank as that of early summer. Into the ends of these pipes you see, are the veins and arteries of the tree, carrying its white blood, or sap, to the minutest leaf, and bringing back the air which the leaves draw in at every pore. The small ring of large pores in the center is the pith, of which every kind of wood shows something, and some kinds show much. These are not tubes, but cloven cells. To see them to the best advantage, let me place in the glass a cross-cutting of elder, which is more than half pith."

"This is the most beautiful thing I ever saw: crystal rings, large and clear, with their edges overlapping one another, lie all over the field. How rich they are! It seems as if every thing was handsomer than the others."

"Not a very clear sentence, Fanny, as *every* thing must include 'the others' of which you speak, so there would be no *others*. Suppose you say, 'Every new thing seems handsomer than the former.'"

"Yes, I meant so, but I was in a hurry—"

"All carried away by my back-load of fagots, eh, Cousin Fanny?"

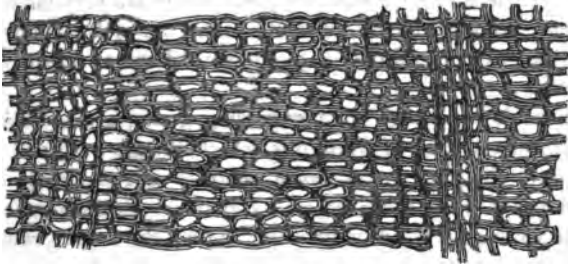
"Here we have a cutting across the end of a white pine twig."

"I guess that will have pores *large enough* for me to crawl through, it is so light."

"Not so certainly, my little Johnny; you can hardly be crowded through a pine knot yet, even by the assistance of a microscope."

"Well, I *am* mistaken, for there are only once in a while any holes through it, only wee, little, tiny ones."

"That is concentrating the smallness too strongly, *wee* boy; as *wee*, tiny, and little are intended to mean the same thing. The very close appearance of the wood is the secret of its lightness, for it is full of minute pores, so crowded together as to leave but very narrow walls of woody matter between them."



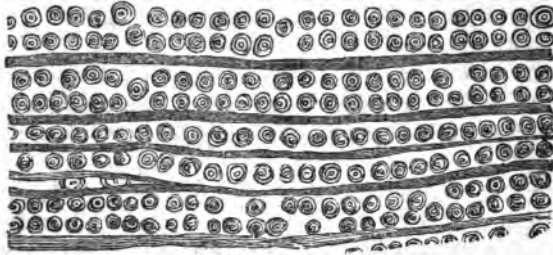
MAGNIFIED END VIEW OF WHITE PINE.

"And what are those two bands where the wood looks as if woven with warp and filling?"

"Those are where the annual layers of cells, or of what is called 'the cellular tissue,' are compressed, as they run across the cells which make the lace-work of the cutting. All cone-bearing trees, as the pine, cedar, spruce, hemlock, and the like, have the same compact and beautiful structure, like the closest woven lace. A cutting along the lengthway of the stick will give you a new beauty and a new idea of the structure of the wood. What see you, Johnny?"

"Oh, my! I see the shelves in the buttery, and the plates all set up in rows on them, and sometimes two rows on a shelf; of silver and glass the plates are, and the shelves are pearl, I guess; you see if they are not, sis!"

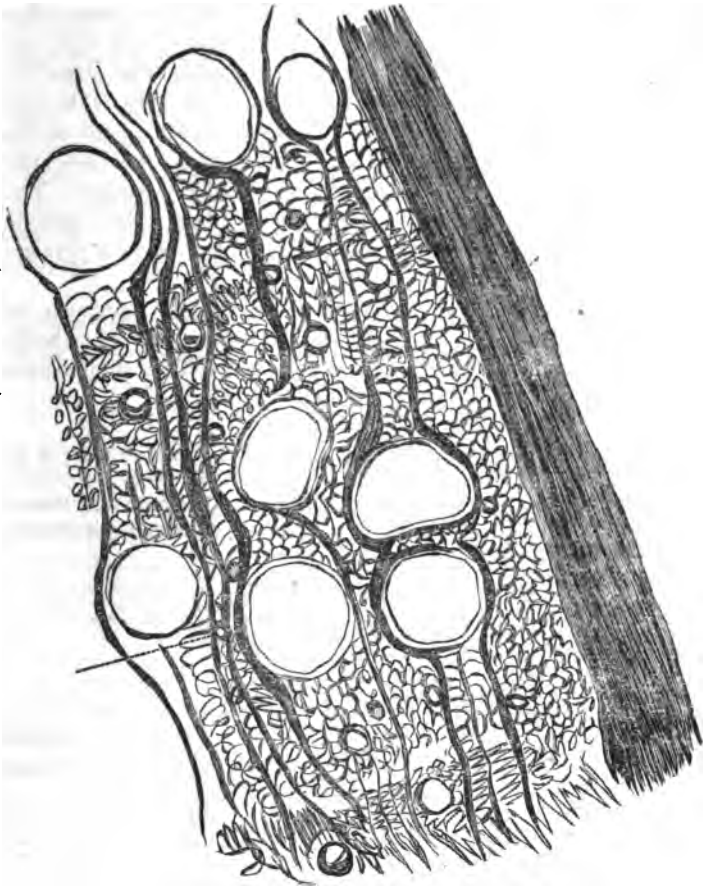
"Yes, they seem so, Johnny; but you know we are looking at a lengthwise cutting of pine wood. What is the meaning of this appearance, Uncle George?"



MAGNIFIED SIDE VIEW OF WHITE PINE.

"The shelves or lines which run through the field are the sides of the sap-tubes, whose ends were seen in the other view. Between these, the glass plates which Johnny saw are called *glands*. These are never found with more than two rows between the tubes, and generally with but one. They are mostly circular, often oval, and sometimes crowded into angular shapes. They are very minute, not measuring more than the five hundredth part of an inch. Those who see the structure of wood only in pictures can have no adequate idea of its beauty.

"On the following page is an engraving giving a magnified representation of a section of white oak, which, though solid and heavy as compared with pine, yet shows a contrast as remarkable in the enormous pores or sap-tubes which it contains. You see in the field one of the more solid bands which radiate from the center, composed of cells so minute that our microscope can not detect them; a hundred of them would be less than the point of a needle in breadth, and ten thousand of them could be covered by the point of the microscope



MAGNIFIED END VIEW OF WHITE OAK.

resting directly over them, while one of the large tubes is not less than the twentieth of an inch. Irregular wavy lines, like the broad band, run in the same direction between these tubes. Some of the tubes, you will see, are very small, the largest being the first growth of each year, of which two are indicated in view. These tubes, as those of many other woods, are found by careful examiners to be formed by bands of woody fibers wound spirally round and round, as if you should twist a tape or ribbon into a pipe by winding it with the edges just overlapping each other.

"I will now show in succession a variety of the specimens before us. The sumach, with its thorn-like down covering the bark, and its arched clusters of cells spanning a round bundle of tubes, and its beautiful center of pith in rich honeycomb. And here is the ash, with a double row of minute vessels in circular clusters, one on the outer and one on the inner margin of the bark, while the lines radiating from the center are very numerous and very regular. The wood is close except at the commencement of the year's growth, where the large tubes are arranged like a profile view of a pyramid of cannon-balls.

"There is no end to the variety, even in apparent sameness, no end to the beautiful figures which sections of wood and various herbs present, but no description and no picture can sufficiently illustrate the wonderful delicacy and order which they display."

The engravings which illustrate the preceding article are from "Views of the Microscopic World," by Brocklesby—published by Messrs. Pratt, Woodford & Co., New York. Those who wish to investigate this subject more fully than it is here treated, will find that work one of extraordinary interest. It is illustrated with about 250 engravings.

SCHOOL-ROOM SONG.

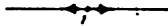
Buzz fly the happy hours
In our school-room cheery,
While we ply our lessons well,
Write, recite, and read, and spell,
Gay as bees among the flowers,
Always glad,
Never sad or weary.

Learning's spoil we strive to win,
In our school-room cheery;
For to man's estate we'll grow,
And the good and great we know,
Draw from stores of thought within.
So we toil
For the spoil so cheerily.

And we aim for noblest things,
In our school-room cheery.
Rills of good are bubbling forth
To enrich the gray old earth—

From the heart each streamlet springs
 Ever glad,
 Never sad or weary.

Who'd not be a glad schoolboy
 In our school so cheery ?
 Pleasant faces here we greet,
 Smiles and gladsome welcomes meet,
 And the hours are winged with joy,
 Always glad,
 Never sad or weary.



Lectures on Useful Knowledge.—No 2.

FORMATION OF DEW.

MY DEAR BOYS AND GIRLS :

I KNOW you do not feel like listening to a lecture in such hot weather, and that you had much rather be out in the beautiful fields, or in some shady grove, than to sit down within doors and hear any body lecture. But this time I will be very brief, and select for my subject the *Dew*, which you know cools the air and refreshes the earth in warm weather, and the subject I trust will prove a cooling refreshment to your minds.

It is now early in the morning, and the ground is still wet with the last night's moisture. All along the spires of grass, and on the leaves of all your beautiful garden flowers, hang the crystal drops. Among the many questions which young people like you are so continuously asking, I presume you have inquired, "Where does the dew come from?" That question has been asked by older heads than yours, and by philosophers, too. I suppose somebody has told you in reply that *dew falls* at night in an extremely fine rain, something like the mist of a foggy day. Let me assure you in the outset that this answer is wrong—*dew does not fall in fine drops from the sky or clouds*. Now I suppose you are ready to exclaim, "Then how does the dew come on the grass, and leaves, and flowers?"

Before answering this interrogation I will state a few facts in nature, which, I think, will enable you to comprehend the reply to what may now appear to be an objection to my assertion. In a warm summer's day, if you fill a glass or pitcher with cold water from the well, you will soon observe that the outside is covered with moisture. All of my young friends must have observed this many times. Besides,

you have doubtless observed that drops of water, like dew, collect in very warm weather on the walls and stones of a cool cellar. Now who can tell me where the moisture and drops of water come from in these instances?

Perhaps some one has told you that the tumbler and pitcher "sweats," that the glass or stone, whichever it may be, is full of minute pores like your own skin, and that the water oozes through and moistens the outside. I have heard such explanations given. If such were the cause, moisture would collect on the surface of these vessels, when filled with water, in cold as freely as in warm weather. But it does not, and thus you can easily understand that such an answer must be false.

The atmosphere always contains water in the form of invisible vapor, which the sun's heat causes to ascend from the surface of the earth, as well as from water. Heat renders this vapor so rarefied and light, that its existence in the atmosphere is imperceptible to our senses. Now, when this warm air comes in contact with some cold substance, it condenses the invisible vapor in the air and water is formed in drops, just as you find it on the outside of a pitcher of ice-water in a warm summer's day, or on the leaves and flowers of plants in the morning, or on the flagstones and walls of a cool cellar. We know that dew does not fall like a fine rain, if it did it would be found only on the upper surface of the leaves and flowers, but dew is found on the under side of the leaves also. Dew does not come from the clouds, for it is never found unless the sky is clear.

We may, then, make these distinctions between rain and dew: rain falls; dew collects. Rain falls on all objects alike; dew selects the objects on which it collects. Rain falls on the earth, as well as on leaves and blossoms; dew has a preference for leaves and flowers, and avoids the barren earth.

Dew will not collect on grass and leaves unless they become cooler than the surrounding atmosphere, any more than moisture will collect on a pitcher of hot water in a warm day. This fact was ascertained by placing one thermometer among the leaves of plants and suspending another some three or four feet above them. The result was, the thermometer among the leaves indicated a temperature twenty degrees cooler than the one in the air. Dew does not collect on a cloudy night; and it has been ascertained, by the same experiment with thermometers, that on such nights the leaves of plants become no cooler than the air surrounding them.

The whole theory of dew may be summed up in a few words.

Dew collects on objects which are good radiators, or, in other words, on objects that readily throw out the heat at night, which they have received during the day. Plants and clouds are good radiators. When the sky is cloudy, and the plants throw out their heat, the clouds throw it back again, and thus the plants are prevented from becoming any cooler than the atmosphere, hence no dew can collect. The clear sky does not radiate heat, consequently on a clear night, as the plants throw out their heat, the sky does not return it, and as they thus become cooler than the air, dew collects upon them.

If you have listened attentively to what I have said, I trust you now understand the nature of dew, and you will no doubt often be reminded that dew collects when you seek the pitcher of ice-water to quench your thirst. Hoping you will observe the phenomena of dew, and ascertain for yourselves that what I have said is true concerning it, I will now leave you to seek the beautiful fields, and the cooling breeze of some shady grove.

MATHEMATICAL SAILORS.

NATHANIEL BOWDITCH, the translator of Laplace's *Mécanique Céleste*, displayed in very early life a taste for mathematical studies. In the year 1788, when he was only fifteen years old, he made an almanac for the year 1790, containing all the usual tables, calculations of the eclipses and other phenomena, and even the customary predictions of the weather.

Bowditch was bred to the sea, and in his early voyages taught navigation to the common sailors about him. Captain Prince, with whom he often sailed, relates, that one day the supercargo of the vessel said to him, "Come, captain, let us go forward, and hear what the sailors are talking about, under the lee of the long-boat." They went forward accordingly, and the captain was surprised to find the sailors, instead of spinning their long yarns, earnestly engaged with book, slate, and pencil, discussing the high matters of tangents and secants, altitudes, dip, and refraction. Two of them, in particular, were very zealously disputing—one of them calling out to the other, "Well, Jack, what have you got?" "I've got the *sine*," was the answer. "But that ain't right," said the other: "I say it is the *co-sine*."

DISOBEDIENCE TO PARENTS.

YOUNG man, is that your father? How could you make use of language so disrespectful? "You don't care! You will talk as you please, no matter who hears you!" If we were in want of a clerk, and there was not a young man within a hundred miles that we could engage, we would not consent to take you. We should be afraid to trust a boy who is disobedient to his parents, who shows so little respect for his father.

A youth who was saucy to his parents we never knew to turn out well. He respects nobody. If your father is in the wrong, and you are certain of it, that is no excuse for such language. No one will respect you for it. Every body will condemn you. A parent should be treated with respect by his children, no matter how poor he may be, or how large his family may be grown.

There is too little respect paid to parental authority at the present day. It is grievous to go into some families and hear the language daily used by the children. "I will," "I won't," "I don't care," "It's none of your business," "I am old enough to know what is right," and the like expressions, are painfully common. Large boys, and grown-up girls even, do not hesitate to speak saucily to their mothers, and break away from their express commands. They will do as they please, and go where they have a mind.

We wish such children could see how they appear in the eyes of their acquaintances; and if they have any shame, it must flush their cheeks.

One thing is certain: an undutiful son and a disobedient daughter can not long prosper. For a season they may appear well to the eye of a stranger; but their self-will and stubbornness are soon discovered, and they are despised. A child who disobeys his parents will not hesitate to abuse any body. Neither age nor talents receive respect from him.—*Anonymous.*

AGE OF THE WORLD.—Some philosophers were once disputing very learnedly and dully on the antiquity of the world. A man of wit, tired of their long discussion said, "Gentlemen, I believe the world is like some old ladies, and does not choose to have her age discovered."

Children's Department.

THE UNKIND CHILDREN.

TOSS it in the air, sir," said one. "Hurrah! there it goes!" "Catch it, Tom—hoist it up again," said a well-dressed boy with a new cap.

There were so many boys that I could not for a minute or two distinguish with what they were amusing themselves. At last the wind blew toward me a little cloth cap, not made, to be sure, in the fashion of this season, but very neatly repaired, and quite good enough to be worn by any respectable boy.

A little boy ran after the cap and tried to get it from the others. His head was bare; therefore I concluded it was his. "Oh, Charles," said he, "give me my cap, it will be all dirty." But the reckless Charles answered by kicking it up in the air again, crying out, "Hurrah for the Dutchman's cap." This stroke of wit, as they all appeared to think it, caused a loud laugh, and one said he bought it from some Dutchman. "Who did you buy it of, eh?"

The little mortified owner of the cap was at last with difficulty kept from tears, and the boys having had enough sport, allowed him to walk home with it, brushing it as well as he could, and trying to get it in shape again, the tears now and then starting to his eyes, and his face coloring at the recollection of the insulting unkind treatment he had experienced from his schoolfellows.

When this little boy came home I heard him say to his mother, "I can not wear this cap again."

"Why not?" said his mother.

"Why, the other boys have new caps, and they call mine a Dutchman's cap."

This little boy's mother was obliged to be very economical and saving in his clothing that she might be enabled to give him a good education, and she said, "I can not afford

to get you a new cap like the other boys, as you know we are not rich, as many of them are.'

"But the boys all laugh at me as I go along the street, and knock my cap off in the dirt, and that makes me feel so, I know not what to do. Oh, mother, get me a new cap."

"I would if I could," said his mother, "but you know I am poor." She looked sorrowfully at him and said, "Your schoolfellows must be very unkind and thoughtless children. But though their behavior discovers ignorance and very foolish pride, you must endeavor to bear it with patience and firmness, and show them by your conduct that a boy's character is not determined by the shape or quality of his clothes. You need not be ashamed to own that your parents have not much money, and are unable to purchase for you fashionable clothing. Be ashamed only of bad behavior."—*Anonymous*.

KEEP YOUR TEMPER.

I NEVER can keep any thing," cried Emma, almost stamping with vexation. "Somebody always takes my things and loses them." She had mislaid some of her sewing implements.

"There is one thing," remarked her mamma, "that I think you might keep, if you would try."

"I should like to keep even one thing," answered Emma.

"Well, then, my dear," resumed her mamma, "keep your temper; if you will only do that, perhaps you will find it easy to keep other things. I dare say, now, if you had employed your time in searching for the missing articles, you might have found them before this time; but you have not even looked for them. You have only got into a passion, a bad way of spending time, and you have accused somebody, and very unjustly too, of taking away your things and losing them.

"Keep your temper, my dear; when you have mislaid any article, keep your temper and search for it. You had

better keep your temper, if you lose all the little property you possess; getting into a passion never brings any thing to light except a distorted face; and by losing your temper, you become guilty of two sins: you get into a passion, and accuse somebody of being the cause. So, my dear, I repeat, keep your temper."

Emma subdued her ill humor, searched for the articles she had lost, and found them in her work-bag.

"Why, mamma, here they are! I might have been sewing all this time, if I had kept my temper."

So it often happens with other children. Like Emma, they lose their temper as soon as they miss any thing, and thus place themselves in a condition most unfavorable to find any thing. Keep your temper if you would be happy and avoid trouble.

WHAT THE BLUE-BIRD SAID TO A LITTLE BOY.

ONE day a little boy, about four years old, sat in the door talking to a blue-bird. He asked the bird questions, and seemed so happy as he gave the little bird's answers. His mother thought, as she watched him, that if this little boy's blue-bird story was put into rhyme, other little children might like it, and be made happy too. So here it is.

What do you say to God, little bird,
In the morning soft and gay,
When with music sweet you welcome in
The coming of the day?

I thank Him for all my happy rest,
By the side of my tender mate;
For the soft and mossy bed, in my nest,
Close by your garden gate.

What do you say to God, little bird,
When the noon-day sun shines bright,
When you hide in the forest green away
From the hot and quivering light?

I thank him for four little spotted eggs,
Lying warm at their mother's heart;
For the patient trust with which she waits
Till her young into being start.

140 WHAT THE BLUE-BIRD SAID TO A LITTLE BOY.

What do you say to God, little bird,
When you sing your evening hymn,
When you see the red sun sink in the west,
And my little eyes grow dim?

I thank Him for all my fine, fat worms,
For my beetles large and rare,
And I pray that He may never cease
To make little birds his care.

What do you say to God, little bird,
When the April showers come down,
When the south wind moans among the trees,
And the stormy heavens frown?

I thank him for drink, and for feathers warm,
And I smooth my ruffled coat,
And I'm glad I've wings to cut the air,
When the earth is all afloat.

But what do you say all this time, little bird?
For your voice is never still;
And in forest and meadow I never miss
The sound of your happy trill.

I can never sing enough, little boy,
When my little ones break their shell,
And my tired mate chirps with joy to see
Her nurslings all hearty and well.

I can never sing enough, little boy,
I was only made to sing,
As I can not work, I'll make the aisles
Of the grand old forest ring.

But better far is the music of deeds,
Thinks the Father that dwelleth above,
And while he provides for your hourly needs,
Go labor and win his dear love.

Every heart that you lighten shall be, little boy,
Far gladder than my morning song,
All the lips that you tune to a moment's content,
In the choirs of angels belong.

—Anonymous.

Editor's Table.

TEACHERS' EXCHANGE.

BELIEVING that mutual advantages result from the intercourse of teachers with each other, we have established, at the office of *THE STUDENT*—Room No. 10, Appleton's Building, 848 Broadway, New York—a "Teachers' Exchange," where we shall be happy at all times to meet teachers visiting New York from any part of the country, as well as those residing in the vicinity. We keep a "Teacher's Register," where all who thus call enter their names, residences, and present occupation; also have on hand all the Educational journals published in this country, together with a library of the principal school books in use, all of which are free to the examination of those who call.

Those who visit the city from a distance may here learn the location of the city schools, and other matters pertaining to Education, which might interest them. By consulting the "Register," teachers frequently learn of the whereabouts and doings of many of their former acquaintances and fellow-laborers. Give us a call.

TEACHERS' CONVENTIONS.—*The New York State Teachers' Association* holds its ninth annual meeting at Oswego, New York, on Tuesday, Wednesday, and Thursday, the 1st, 2d, and 3d days of the present month.

The American Institute of Instruction will hold its *twenty-fifth* annual meeting at Providence, R. I., at the Railroad Hall, on the 8th, 9th, and 10th days of the present month. Lectures will be delivered by Rev. Dr. Wayland, President of Brown University; Rev. E. B. Huntington, of Waterbury, Ct.; Elbridge Smith, Esq., of Cambridge, Mass.; Rev. Edward Beecher, D.D.; W. Hooper, of Yale College; and Geo. Sumner, Esq., of Boston. Gratuitous entertainment will be provided for the ladies.

MOUNT CARROLL SEMINARY.—Several weeks since we received a circular of the Mount Carroll Seminary, located at Mount Carroll, Ill., and under the supervision of the Misses Wood and Gregory. We are happy to learn that this Western institution is in such a *flourishing* condition. During the term recently closed it numbered over one hundred pupils. Preparations are making for more extensive accommodations during the fall term. Thirty copies of *THE STUDENT* are sent to this institution monthly. We shall be glad to hear with what success it has been used as a reader. From other seminaries and schools, thus using *THE STUDENT*, we should esteem it a favor to receive their experience in regard to the interest it awakens, and its adaptation as a school-reader.

NEW YORK STATE NORMAL SCHOOL.—This institution celebrated its closing exercises on the 13th of July. Its next term will commence on the 18th of September. Appointments to attend this school are made from each county by Town Superintendents of Common Schools.

Our Museum.

AUGUST is the eighth month of our year, but the sixth month of the old Roman year. The Jews and old Romans began their year with the month of March; hence the latter called this month (August) *Sextilis*, or sixth month. The name was changed to *August* in honor of the Roman Emperor Octavius Augustus, on account of his victories, and his entering upon his first consulate in that month.

DEBT AND CREDIT.—The word D-E-B-T is composed of the initials of "Dun Every Body Twice." C-R-E-D-I-T is formed of the initial letters of "Call Regularly Every Day—I'll Trust."

THUNDERBOLT.—Sometimes we hear this word used for lightning, as, a "thunderbolt fell," etc. Thunder is only the sound or noise which follows a flash of lightning, as a report follows the flash of powder when a gun is discharged. Thunder never does any injury, except it may be to frighten; it is the lightning which kills. A *thunderbolt* is supposed by many to mean a mass of thunder or lightning which falls from the clouds and destroys whatever it comes in contact with; but no such masses of matter fall from clouds. Yet there are frequently seen apparent balls of fire darting from a cloud heavily charged with electricity, and these, no doubt, have given rise to the popular error of *thunderbolts*.

YES OR NO, TO ANSWER NEGATIVE QUESTIONS.—If I wished to answer the following negative question affirmatively, should I say *yes*, or *no*? "He is not coming, then?" If the person is *not* coming, the answer should be *No*; but if he *is* coming, it should be *Yes*. The first answer would imply "*No*, he is not coming;" the second, "*Yes*, he is coming."

USEFULNESS OF THE COCOA-TREE.—The cocoa-tree supplies the natives of South America with bread, water, milk, honey, sugar, oil, vinegar, wine, cups, spoons, basins, baskets, cloth, thread, needles, paper, ship-masts, sails, cordage, etc.

REPEATING WORDS, and using them in different parts of speech. I never saw a saw saw as this saw saws. I said she said he said you said they said we said—nothing. That that that Mr. Brown used in that sentence that that gentleman quoted, corresponds with that that that was used in that sentence under discussion on that day that that gentleman visited our school.

ENIGMAS, CHARADES, ANAGRAM, REBUS.—An *enigma* is an ambiguous saying, or a composition in which something known is concealed under obscure language. A *charade* is an enigma made upon a word of two or more syllables. It usually consists of two parts, the first describing the syllables separately; the second alluding to the entire word, and combining the whole in some lively, poetic, and ingenious thought. An *anagram* is a word changed into another word of different or opposite meaning, or one word converted into two or more lesser words, as *drapery*, the letters of which, when transposed, form *per yard*. A *rebus* is an enigmatical composition, in which figures or objects are alluded to, instead of words, and out of the combination thus produced, a written puzzle is contrived.

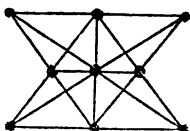
Amusements of this kind were all in high favor with the ancients, and in the days of Pitt, Sheridan, Byron, and Johnson they were a fashionable amusement. The youth of the present day are also fond of these pastimes, and in our pages we shall endeavor to give this kind of amusement an instructive tendency.

Though I'm small, yet when entire,
I sure could set the world on fire.
Let but a letter disappear,
And I will guard a herd of deer.
Omit another, you'll find
What once took care of human kind.

AN OLD PRECEPT USEFUL TO ALL—Composed of *five* words and 86 letters. Be careful in the 18, 1, 4, 84, 5, 14, 3, 16, 32, of your 19, 6, 30, 24, 18, 17, 11, 27, 83, 86, and 5, 16, 10, 18, 3, 29, 1, 21, well before you 29, 1, 5, 11, 29, 84; avoid the society of the 3, 21, 35, 1, 2, 84, 22, 1, 17, 25, and the 18, 5, 27, 21, 10, 1, 22; follow not the 18, 29, 2, 15, 5, 84 of the 24, 35, 6, 9, 29, but walk in the 36, 14, 1, 24, 18 of the just; so shall you enjoy 24, 1, 31, 5, 84 on earth, the 21, 84, 36, 24, 1, 19, 25 of the wise, the 26, 6, 20, 29, 27, 24, 15, 33, 3, 28, 17 of the 24, 21, 9, 29, 84, 17, 25, the favor of 26, 20, 29, and 4, 6, 2, 84 of 80, 1, 10.

ANSWER to the Puzzle of the stars and the riddle in June number, page 71 :

My bright young friends ! here *nine* stars see;
Ten rows there are, in each row *three*.



Mo-no-syl-la-ble is the answer, yet the riddle is not strictly in accordance with the standard orthography, for the word is properly divided in this wise : *mon-o-syl-la-ble*.

Items and Events.

A N AGED ELM.—The great elm tree, on Boston Common, is estimated to be 800 years old; hence it must have sheltered not only our forefathers, but the aborigines before them.

POSTAGE ON DAGUERREOTYPES.—Daguerreotypes may be sent by mail at the regular rates of letter postage, viz.: three cents for each half ounce in weight if paid by the person mailing it.

NEW YORK CITY SCHOOLS.—In the city of New York there are 112 public free schools, in which are employed 1,000 teachers. The whole number of children taught in these schools last year was 119,000. During the present month these schools have a vacation.

RAILROAD IN BRAZIL.—A railroad was recently opened near Rio de Janeiro. It is completed about nine miles in length. This is the first railroad in Brazil, and we believe the first in South America.

Literary Notices.

Books noticed in *THE STUDENT* may be obtained by persons residing in any part of the United States, at their own post-office, free of postage, by inclosing the price here given, in a letter, post-paid, and directing it to N. A. CALKINS, 348 Broadway, New York.

FARMINGDALE. By Caroline Thomas. Published by D. Appleton & Co., Nos. 346 and 348 Broadway, New York. 12mo; 392 pages. Muslin.

The merit of the work now before us is not all contained in its title; indeed, amid the multitude of promising titles to unpromising books of the present day, *Farmingdale* falls to convey any idea of its real character. Two children—Mary and Thomas—were left orphans at a tender age, and taken to Farmingdale, the home of an aunt—a hard-working, mercenary, unsympathizing woman. Mary is fond of learning, and even in childhood conceives the idea of preparing herself to become a school-teacher. From her aunt she receives no sympathy, and after toil, suffering, and cold neglect, this hard-hearted woman, in a fit of ill temper, sends the orphan children of her own sister out upon the world alone. In spite of all discouraging circumstances, Mary grows up with energy of character, and a sweet and amiable disposition, and wins the friendship of many who are kind-hearted and benevolent. She finally succeeds in carrying out the favorite plan of her childhood, and becomes the teacher of a flourishing school for young ladies, and thus aids her brother in his preparations for college.

The story is laid among the hills of Vermont, and describes scenes peculiar to country life in New England. It conveys an excellent lesson for those parents who are completely absorbed in preparing for the wants of the body—to the neglect of all cultivation of the finer feeling of their natures, regardless of the mind—the most important part of man. Price by mail, pre-paid, \$1 25. The same, in paper covers, \$1.

HILLS, LAKES, AND FOREST STREAMS; Or, a Tramp in the Chateaugay Woods. By S. H. Hammond. Published by J. C. Derby, No. 8 Park Place, New York. 12mo; 340 pages. Illustrated. Muslin.

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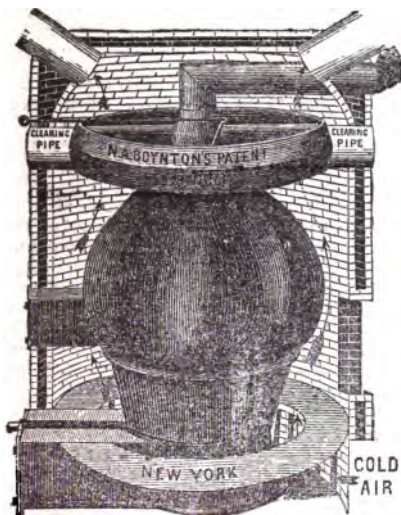
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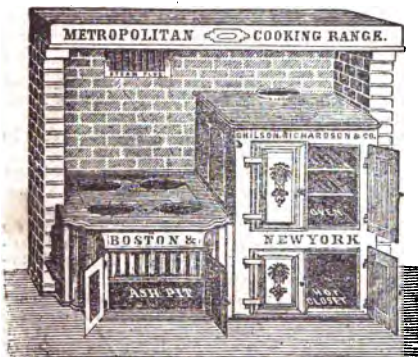
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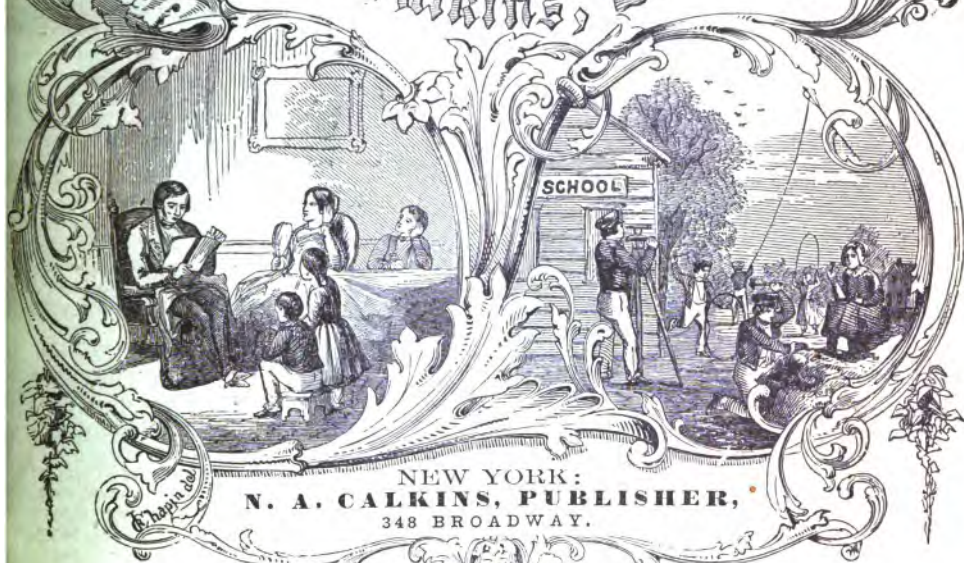
SEPTEMBER, 1854.

No. 5.

THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

N. A. Calkins, EDITOR.



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Office of The Student, Room No. 10, Appleton's Buildings, 348 Broadway, New York.

BUSINESS NOTICES.

BILLS FOR DELINQUENT SUBSCRIBERS.—As we have stated in previous numbers, we sent a notice with the May number of *THE STUDENT* to all subscribers whose terms of subscription expired with the April number, requesting them to inform us if they desired us to discontinue sending them the work. To all who did so, we have discontinued; to others the work has been sent regularly, and many have forwarded us the money to renew their subscriptions. To those who are still delinquent we send bills, on the receipt of which we trust they will promptly remit the payment for their subscription, returning therewith the bill for us to receipt and re-forward to them in the next number of *THE STUDENT*.

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TO CORRESPONDENTS.

Those who write articles for any particular month of *THE STUDENT*, should send them before the first of the preceding month.

E. A. C.—We should be pleased to hear from you again soon.

G. R. HALL writes us, saying, "I removed from my former residence some months since. Please discontinue *THE STUDENT*." As Mr. Hall does not inform us where he now resides, nor where his "former residence" was, we can hardly be expected to comply with his request. Had he given us the name of his former postoffice, with the name of the State, we could have done as he desired us very easily.

L. B. H., of *Camanche, Iowa*.—It was our mistake in sending the extra number. You may distribute them among such friends as you think might be induced to subscribe.

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FAMILY CONVERSATION.

THE power of interchanging thoughts is the divinest and most practical of our endowments. It is a stream flowing between the shores of Fancy and of Fact, and bearing on its current, from one to the other, an inestimable mental traffic. But how frequently does it waft along an empty bark, or at best, one laden with worthless trash! And yet, if we reflect but for an instant on the bountiful Source from which we derive this consoling gift, shall we not feel it our duty not only not to waste this natural treasure, but also to use it in the manner best calculated to please our great Benefactor, and to improve ourselves?

Very much depends on the conversation of those with whom we habitually mingle. How many great men have received their first impetus on the road to fame from the elevating influence of the conversation of some gifted friend! How many individuals, occupying distinguished public positions, owe half their distinction to the fact of their being permitted to absorb and elaborate afterward, in their own fashion, the sentiments and ideas that circulate from mouth to mouth around them!

Notwithstanding the evident importance of rendering conversation a medium of conveying knowledge, and impressing it on the memory, it is absolutely astonishing how much its capabilities are disregarded in ordinary family circles. I have often thought, if it did not appear invidious, that it would be a useful lesson if one were to take notes of the conversation passing around an ordinary fireside for a few evenings, and afterward present those who engaged in the conversation with the written result of their lucubrations. How startled would some of them be to find the naked ghosts of their idealess babble rising up in judgment against them! How strange would it seem to see the long array of meager insipidity which, in the heat of discourse, passed as current coin! How humiliating to discover that there did not exist in the long records of empty gossip one thought that deserved commemoration, or one sentiment that could benefit humanity!

Reading and conversation should go hand in hand, the former lending to the latter piquancy and weight, the latter giving to the former the power of stamping itself indelibly on the mind. Plato knew this; and in the quiet groves of Academe gave the immortal

example of the worth of well-directed conversation. The man who reads a book and does not speak of it is like the squirrel who busies himself during the autumn in collecting treasures of beech-nuts and acorns, and buries them carefully in the earth as a store against the hunger of winter, but, having a bad memory, forgets where to seek for them when the hour of want arrives, and leaves them to rot or vegetate, as chance ordains.

Thus must it be with the silent student. He lays up stores of learning and noble thought; he fills the dark corners of his brain with well-selected and useful lore; but for want of registering them during acquisition, for want of dipping them in the stream of discourse—which, like the fountain of eternal youth that Ponce de Leon sought for, would have rendered them immortal—they fade, in time, from his memory, and when he would seek for them in years afterward, he finds, like those misers who shut up their garments in chests and never draw them forth, that nothing remains but dust and ashes.

Conversation to be truly agreeable should be instructive; but to be instructive, it should be first made agreeable; nor should the topics be treated in a dry and repulsive manner. It is a duty that people owe to one another, to render their social intercourse productive of mutual benefit. This may be most readily and effectually accomplished by the adoption in the family circle, where friends are in the habit of meeting, of some regular plan which shall guide, without fettering, the conversation; and which, while it gives it an instructive tone, need not interfere with its discursiveness, or suitableness to all comprehensions. Nothing would be more simple, and nothing of more lasting usefulness to this and succeeding generations.

There are few families, in the present age of unprecedentedly cheap literature, without the means of commanding a supply of valuable and well-written books. And it would not be very difficult for the elder members of every household to establish a rule, that every evening, or on certain evenings each week, when gathered round the fireside, some books, or discovery, or work of art, or historical event, should be calmly and regularly discussed by the entire circle. Such discussions should embrace a variety of subjects, including those of sufficient familiarity for all to engage freely in the conversation. Then every member, however inexperienced and unlearned, should be heard with attention; for as there is no flower, however humble, from which the bee will not extract honey, there

is no mind so unlimited or unenlightened, from which we may not gather some fruit to be garnered in our memories.

The topics introduced need not always be treated profoundly, for a continual gravity would put enjoyment out of the question, and make a circle of pedants; and a pedantic family is detestable. It was Pitt, I think, who said, "I would not give a fig for a man who was not able to talk nonsense!" And that great statesman knew very well what he was saying, for it requires a positive amount of genius to talk nonsense well. There need be no necessity, then, for the debates I am recommending to be always wrapped in intense gravity. A subject should now and then be started which would admit of being treated in a volatile manner. Should a family determine to improve and amuse themselves after this rational manner, instead of wasting their evenings in idle gossip, nothing would be easier than to vary the entertainment sufficiently to give it the charm of novelty.

I would earnestly advocate the fireside readings and debates. With young people the debates would be productive of the purest benefits. They would give them a habit of expressing themselves with propriety of diction; of arranging their thoughts and presenting them in the most forcible manner. They would impress on their memories every new fact that came under their notice, and the contents of every book whose merits formed the subject-matter of the discourses. They would teach them that patience and a governed temper are necessary to conduct any sort of discussion properly. And, finally, by bringing the minds of the various members of the family into constant intercourse with each other, by displaying the acquirements of some, and the deficiencies of others, it would lead to a wholesome emulation on the side of the uneducated to rise to a level with the more gifted. It would also afford the latter an opportunity of proving their kindness and good-nature by assisting their fellow-laborers in their praiseworthy efforts with their advice and counsel; and thus by drawing the bonds of union closer, the whole family would be linked together in social ties that nothing could sever, because they would be spun from the heart, and strengthened by the intellect.

REAL MANNERS.—Good manners is the art of making those people easy with whom we converse. Whoever makes the fewest persons uneasy, is the best bred in the company.—*Swift*.

WHY THE NETTLE STINGS.

FEW persons there are, in the country, who have not learned by grievous experience that the nettle stings ; yet there are doubtless still fewer who can tell why so much pain arises from its touch. The sting is not, like a pin or needle, solid throughout ; but it is hollow at the center, and perforated at the point ; and when touched it is not only sharp enough to pierce the skin, but also is so constructed as to inject a particle of poisonous fluid into the wound it makes, and this is the source of the pain which follows. The wound itself is so minute that it would scarcely be felt, but the poison irritates, inflames, and causes the well-known pain alluded to.

The plant, the small species of which stings the most severely, is covered all over with hairs ; but by using a microscope or magnifying glass, you may perceive that these are not all of one kind, some being perforated, while others are not. The perforated ones are the stings. Each sting stands upon a pedestal, and this pedestal performs the office both of a gland and a poison bag. When a body touches its point, the base is pressed down into the spongy pedestal, and the poisonous fluid or sap rushes up through the tube of the sting, and flows out of the terminal aperture. As fiery and disagreeably painful as the sting of the common nettle is, it can hardly be compared with the venomous poison of some of the East Indian species.

LIFE IN THE DESERT.

SOME very interesting sketches of life in the East may be found in Professor Upham's letters, from which we have taken the following extract :

" We left Cairo on the 28th of March ; our destination Mount Sinai and Palestine. The din of crowded streets of the city soon died upon our ears. We form a caravan of more than twenty camels. We carry our food and water with us. A vast expanse of uncultivated wilderness is before us. Gardens, and trees, and fountains, and flowers, and singing birds are gone. Day after day passes on, monotonous, but still not without interest. He who has not been in the desert, has not known all the heart can feel. It is the great prerogative of our nature to unfold itself anew in every novelty of

situation and circumstance. The desert speaks. It has a voice for the heart, and the heart answers.

"The desert from Cairo to Suez is not in all respects so destitute and lonely as the vast desert on the East side of the Red Sea. From time to time are seen shrubs and tufts of coarse grass; but they furnish but a slight relief to the general character of the scene. I was surprised and pleased to find in some places a green plant, which bore pods of an inch in length, and which, on pressing and breaking them, were found full of water.

"At the distance of forty miles from Cairo we sat down under the shade of a large acacia tree, the first tree which we had noticed for that distance. It is difficult to understand the secret of its growth in such a place. Such exceptions can not make these vast solitudes otherwise than a desert.

"Animal life dies, as well as vegetable. It is true that it is possible in the course of some days to get sight of a snail, which is found in some localities, and which has discovered the secret of attaching itself to the few shrubs of the region, and extracting their moisture; or to cross the path of a beetle groping its way in the heated sand; or to startle the solitude of a lizard, which has contrived to live among the rocks. But in general the desolation is perfect. Life is in exile.



HALT IN THE DESERT NEAR THE BORDERS OF PALESTINE.

"Marching over wide and arid plains, and with hills and mountains of rock and sand in sight, we go on from day to day. The eye rests upon forms, not upon life; and imagination sometimes fills up the picture. Successive hours tell our progress. The march becomes weariness; but the setting sun brings rest. Turning from the narrow, beaten paths which constitute the roads of the desert,

and seeking a retired and sheltered place, we pitched our tents for the night.

"The pitching of tents is also a new scene; but it has the associations of antiquity and religion. The patriarchs dwelt in tents. Paul was a tent maker. As we hear the sound of the hammer, we know that it is required of Zion to lengthen her cords and strengthen her stakes. The Arabs shelter themselves under the piles of luggage; and if the evening is cold, they build a fire. They form themselves in little assemblies; and if they travel in comparative silence by day, they are noisy as laugh and song can make them in their social groups in the early part of the night. The camels, weary with the heat and toils of the day, lie down at their sides and are fed. They then prepare their own humble meal.

"It was thus day after day, and night after night. At a certain time, being little inclined to sleep in the novelty of such a situation, I walked out at midnight. The moon was in all its brightness; the sky, without a cloud to suggest the idea of form or limitation, seemed vast as eternity; and, being studded all over with stars, it was bright with the brightness of God. The camels, stretched out at length upon the ground, were large, dark shadows in the moonlight. The men slept at their side. There was no sound. But the soul heard the silence. I have listened to the deep moaning sound of the vast forests of my native land; I have been on the ocean when each wave had its voice, and the voice was thunder; but these great voices entered less deeply into the ear of the spirit than the mighty silence of the desert at midnight. At such a time the soul opens its capacities. It magnifies and expands itself in the greatness of its dilated conceptions, and takes hold of eternity; and in the voice which is then sent forth—a voice uttered in brightness without a shadow, in vastness without limit, in harmony without variation—it bears the proclamation, so dear to every holy soul, of the unutterable tranquillity of God."

PARASITES.—Nature descends down to infinite smallness. A great man has his parasites; and if you take a large buzzing blue-bottle fly, and look at it in a microscope, you may see twenty or thirty little ugly insects crawling about it, which, doubtless, think their fly to be the bluest, grandest, merriest, most important animal in the universe, and are convinced the world would be at an end if it ceased to buzz.—*Sidney Smith.*

THOUGHTS, NOT WORDS.

THINK not the poet's easy task
 Is forming smooth but empty rhymes;
 Not words alone, but thoughts we ask,
 An earnest voice, not idle chimes.
 No melody expressing naught,
 Can charm like true and simple thought.

Try not, O youth! in verse of thine,
 To hide a void with subtle art;
 But let there shine in every line
 Thy understanding and thy heart;
 For only when thou feelest much,
 Will hearts obey thy magic touch.

Strive not with sentimental phrase
 To suit the foolish and the vain;
 But show thy spirit's changing phase,
 Or workings of thy busy brain.
 Write from thy soul, if thou wouldst claim
 The worthy poet's noble name.

Break thou the bonds which keep thy pen
 Back from the poet's higher themes;
 Write as a man to thinking men,
 Despising weak and childish dreams.
 Then on some mind new truth will shine,
 Some heart will echo back to thine.

But empty words of silver sound,
 Like bubbles on the shallow wave,
 Appear, and then no more are found—
 The brook that bore them is their grave;
 While deep, clear streams, with silent force,
 Cut their own channel in their course.

Write not to suit the lowered taste
 Which some may have, and more but feign;
 There rise around thee, grand and vast,
 The glorious heights thou mayest attain.
 For noble ends employ thy pen,
 And write thy name in hearts of men.

BROOKLYN, N. Y.

M. E. A.

EVIL company is like tobacco smoke—you can not be long in its
 presence without carrying away a taint of it

THE CROSSBILL.

IN the June number of *The Student* for 1853 we published a brief description of the Crossbill, accompanied with an engraving. In that article it was stated that "the Crossbill is seldom, if ever, seen in the United States during the summer—it is supposed to proceed very far to the north, beyond Hudson's Bay, to breed." Mr. John R. Stork, of Coventryville, N. Y., has sent us, as a correction of the above statement, observations on the habits of this bird, as witnessed by himself, for which we cheerfully give a place in our columns. It is ever our aim to give only correct descriptions in our articles on natural history, and if we do happen to be led astray by the statements of some other writers, we shall be happy to receive facts and observations from any of our readers who may chance to be in possession of reliable information. In the present instance it is possible that our authority is correct, and that Mr. Stork's observations chanced to be of an unusual occurrence.

"In June, 1843, I noticed some birds, which appeared very tame, making a meal of turnip seed that had been placed under a shed to dry. I did not know to what species they belonged until one of them was killed, when I found it to be the Crossbill. In July a pair of them were caught, and kept in a cage about a week. Many of them were on my farm during the hottest days last summer, and also in the coldest days last winter. They alight on my house, and in the door-yard. One day I saw one sitting on the shaft of a wheelbarrow, and he kept his position until I took hold of the opposite shaft. On another occasion, I saw one sitting on a fence stake, and my little boy talking to him, and calling his Pa to come and catch him.

"We frequently feed them crumbs of bread, and millet, and meal. They are great favorites with the children, and even the dog has been taught not to molest them. Their flight is nearly horizontal, with an up-and-down zig-zag; and at each bound or elevation they sing chip, chip. The engraving which accompanied the description in *The Student* was very correct in its representation of this bird."

THE ENGLISH LANGUAGE.—They may talk as they will of the dead languages. Our auxiliary verbs give us a power which the ancients, with all their varieties of mood and inflections of tense, never could obtain.—*The Doctor*



ELIZABETH OAKES SMITH.

THE name of Mrs. Oakes Smith, as she is usually called, is familiar among the female writers of America, both for her productions of poetry and prose. She is a native of Cumberland, a pleasant town in the vicinity of Portland, Maine. Her father, Captain David Prince, was lost at sea in his early manhood. Her mother, a woman of much force of character, belonged to the Blanchard family. Through her grandmother, Elizabeth Oakes Prince, whose name she inherited, she is related to the family of Oakes, who were distinguished for learning, among the early New-Englanders.

Of the manner in which Elizabeth Oakes Prince passed her earlier childhood we have no knowledge; but while still almost a child, having scarcely attained the age of sixteen, she was married to Seba Smith, a gentleman of ability and high social standing. Mr. Smith was at that time an editor of a leading political paper in Portland. Afterward he was known as the original "*Jack Down-*

ing," the author of a series of humorous political letters, written during the administration of Andrew Jackson, the great popularity of which produced a score of imitators. More recently, he has been distinguished as the author of numerous contributions to the public journals, and for "New Elements of Geometry."

For some years after their marriage, Mrs. Elizabeth Oakes Smith resided in Portland, and it was there that she commenced her literary career. Subsequently she removed to New York; and more recently to Brooklyn, where she now resides with her family. It was not until the misfortune of her husband, who became embarrassed in the well-known disasters of the Maine wild-land speculations, that she took up her pen to aid in the support of her children. Her first productions were chiefly in poetry. "The Sinless Child" has won for her much admiration, as a poem of uncommon tenderness and grace, illustrating the most elevated traits of humanity. Another popular poem of hers is the "Acorn."

The later writings of Mrs. Oakes Smith have chiefly been of prose. Her style is a combination of the philosophical with the ideal. Sometimes she becomes an essayist, at others a critic; but she always writes as one who has independent thoughts, and with a desire to communicate them to others. More recently she has appeared in public as a lecturer, and as such she speaks with apparent freedom, though from written notes. The topics which now mostly occupy her pen, are social wrongs, particularly those appertaining to her own sex.

In form, she is somewhat above the medium stature, with dark eyes, rich brown hair, and a commanding personal appearance. She is now in the meridian of strength and intellect, refined by culture and a large experience.

TREAD OF THE CAMEL.—What always struck me as something extremely romantic and mysterious, was the noiseless step of the camel, from the spongy nature of his foot; whatever be the substance of the ground—sand, or rock, or turf, or paving stones—you hear no footfall; you see an immense animal approaching you, stilly as a cloud floating on air; and, unless he wear a bell, your sense of hearing, acute as it may be, will give you no intimation of his presence.—*Macfarlane.*

GO ON!

BY J. BAISTER LANGLEY.

Go on! go on! No moments wait
To help the right;
Be strong in faith, and emulate
The virtues of the good and great,
With all thy might.
Go on!

Go on! go on! The skies may lower,
The storm may burst;
Unshaken in the trial hour,
Good purposes shall give the power
To brave the worst.
Go on!

Go on! go on! Thou canst not tell
Thy mission here;
Whate'er thou doest, labor well,
Nor let a doubt within thee dwell,
Or coward fear.
Go on!

Go on! go on! 'Tis never late
To act thy part;
Thy stern resolves shall conquer fate,
And springs of happiness create
Within thy heart.
Go on!

Go on! go on! No guerdon seek
For thy reward;
But while heroic, be thou meek,
And from thy heart and from thy cheek
Be pride debarred.
Go on!

Go on! go on! Thy Master's ear
And constant eye
Observe each groan, each struggling tear:
He, midst the shadows dark and drear,
Is standing by.
Go on!

Go on! go on! Thy onward way
Leads up to light;
The morning now begins to gray,
Anon the cheering beams of day
Shall chase the night.
Go on!

"NEVER FORGET YOUR MOTHER."

Go on ! go on ! Oh, doubt it never—
 This strife with wrong
 Is fated not to last forever,
 But, if we boldly make endeavor,
 Will cease ere long !
 Go on !

—Selected.

"NEVER FORGET YOUR MOTHER."

THE editor of the *Lawrence Courier*, who is a Worcester boy, referring to the death of the Hon. John Davis, remarks, that he owed much to the personal suggestion and advice of the Ex-Governor, kindly and earnestly bestowed in earlier years, and adds :

"The last counsel we received from him was characteristic of the man ; it was on the deck of a vessel that lay with lopsened sails and shortened cable that we, still in boyhood, just commencing years of wandering and hardship, received a parting grasp of his pure hand with these words—"God bless you ! Remember what I've said ; and wherever you go, NEVER FORGET YOUR MOTHER !" What better charge could be given a lad launching forth on "life's deceitful tide," where the chart and compass of his young head and heart must be his only protection from shipwreck ?

"Many years have passed away, and that good man has finished the voyage of time ; he has disappeared down the dark stream of death, and we doubt not has reached that celestial haven where the storms of earth are never known, and has exchanged the anchor symbol which he ever carried at the prow during life, for a blissful realization."

SMALL TALK.—Fuseli, the Swiss painter, had a great dislike to that species of conversation familiarly denominated "tattle." Once, when sitting in his room for a long while, among some trifling visitors who were discussing the weather, and such like interesting subjects, after remaining for a long time without speaking, he burst forth with a—"We had pork for dinner to-day !" "Dear ! Mr. Fuseli," exclaimed one, "what an odd remark !" "Why," replied he, "it's as good as any you've been saying for the last hour."

Youth's Department.

FIRMNESS AND OBSTINACY.

BY MISS C. M. TROWBRIDGE.

DID you ever see a diamond, my young friend? I suppose you have. At all events you know very well that the diamond is a gem, or precious stone, of the most valuable kind. It is usually clear and transparent, though sometimes it is colored. Do you know of what this valuable stone consists? If you have any knowledge of the chemical composition of different substances, you will reply that it consists of pure carbon.

If a piece of diamond is placed in a glass vessel containing oxygen gas, and then exposed to the intense heat of a large convex lens, or burning glass, the diamond entirely disappears, and there remains in the vessel only carbonic acid, which consists of carbon and oxygen, thus proving that the diamond consists only of pure carbon, which combines with the oxygen to form carbonic acid.

There is also another substance consisting of pure carbon, which in every other respect is very unlike the diamond. This substance is charcoal. If charcoal is subjected to the process above described, the same result is produced. The charcoal entirely disappears, and the oxygen is converted into carbonic acid.

You see, therefore, that the diamond and charcoal have one important point of resemblance. They are both composed of the same substance; but here all resemblance ceases. Who would conceive, if it had not been proved by chemical experiments, that this valuable and precious stone had any thing in common with a substance so dissimilar as charcoal? The latter substance is certainly very valuable in its place, but I do not think you would hesitate long, if it were given you to choose, whether you would take a certain amount of carbon in the form of a rich diamond, or a piece of charcoal.

This instance illustrates the fact, that very dissimilar substances in nature may have strong points of resemblance. This same thing is true in regard to different traits of character. Take, for instance, the traits of firmness and obstinacy. There are points of resemblance between these two traits of character, but obstinacy

is as unlike firmness as charcoal is unlike the precious diamond. You would not mistake a piece of charcoal for a diamond ; no danger of such a mistake. But sometimes obstinacy is mistaken for firmness, and an individual gives himself credit for being firm when he is only obstinate. Lest you should some day mistake the one for the other, let us look at them a little more closely.

Here are a merry group of boys playing ball near the school-house during the hours of intermission at noon. Let us draw near and observe them. They all seem equally happy, and equally intent upon the game ; but though so much resembling each other in their present appearance and conduct, their characters are very dissimilar. James is firm, George is obstinate, Charles is passionate, Henry is indolent, and Joseph is jealous and suspicious. But I shall only speak of James and George here.

Look at James. His cheeks are glowing with exercise, and his feelings are so enlisted in the game that he forgets every thing else ; forgets what he should remember, that he is approaching too near the school-house for the safety of its windows, though the teacher has cautioned the boys on this point. He throws his ball with great force toward Charles, who endeavors to strike it with his club, but only gives it a hit which changes its direction, and sends it straight through one of the panes of glass, in the nearest window of the school-room.

George, Charles, Henry, and Joseph all gather around. What is to be done now ? The affair is a pretty serious one, and they expect the teacher will be very much displeased. All advise an attempt at concealment. They can go in, and pick up the ball and pieces of glass, and put down the curtain, and the teacher will not observe the broken glass before the next day, then he will think it was broken during the night.

But James says, " No, I shall go directly to Mr. A——, and tell him the whole story."

All the boys call him foolish, and try to dissuade him from this course. They think it may just as well be concealed. If he confess it, they are sure Mr. A—— will be very angry, and will punish him, for he is a stern man, and has forbidden the boys to play ball near the school-house. But James is not to be moved ; he has made up his mind to tell the teacher and bear the consequences, whatever they may be.

James is firm. The pure diamond of firmness adorns his character. The result proves that he has taken the wiser course. Though

Mr. A—— reproves his carelessness, he does not punish him, but holds up his example of noble frankness for the imitation of all.

Now we will turn to George. It is a beautiful winter evening, and the boys agree to have a fine skating time on a pond half a mile distant. On their way they call for George. There are two roads which lead to the pond, and George chooses one of these roads, while the rest choose the other. George declares that he will go the way he has chosen, or he will not go at all. The other boys think it hardly fair or republican that a minority of one would overrule the decision of a majority of six or seven, and they will not yield to it. The result is, that George takes the road which he has chosen, and moodily pursues his solitary way to the pond.

The two paths are not so far apart as to prevent his hearing the merry voices of his companions, or those who might have been his companions if he would have gone with them. Their evident enjoyment of their walk adds to his ill-humor. When they all arrive at the pond, his playmates ask him, with a roguish smile, if he has had a pleasant walk. He answers them pettishly. He is in no mood to enjoy the evening's sport, and returns home sullen and out of temper.

Now is George firm? No, he is obstinate. His obstinacy bears no more resemblance to the firmness of James than the charcoal does to the diamond. Firmness is the result of a calm and settled determination to pursue, in all cases, the path of action which conscience points out as right, or which the judgment decides to be wise and expedient. But obstinacy is the offspring of a mere blind self-will. It says, I will have my own way, because it is my way. How dissimilar they are! You need never mistake the one for the other.

The firm man is as firm as the hills when he owes it to duty and conscience to be so, but he is often the first to give up his own way in trifles where no useful or important purpose can be gained by adhering to it. The obstinate man, on the other hand, is usually obstinate about trifles, and yielding where he should be firm.

As carbon found in its crystallized state in the beautiful diamond, so is decision of character, crystallized, so to speak, into Christian firmness when it is molded and guided by moral principle; but when it is left to follow the instincts of a blind and perverse self-will, it degenerates into mulish obstinacy.

If, my young friend, you would possess a character more to be coveted than diamonds, learn to be both firm and yielding—firm in

the discharge of duty—yielding to the wishes of others when you can yield without violating your conscience. Learn to say No, to those who would tempt you to a sinful or unwise course of action, but learn, also, to say Yes, when only perverse self-will or blind obstinacy is prompting you to refuse acquiescence.

SHALL I BE IDLE?

"ROVING o'er the garden free,
Little honey-gathering bee,
For awhile your toil forego,
Come and play with me."

"No, no!

Soon will pass the summer hours,
Soon will fade the gayest flowers,
And the winter will arrive,
Ere I have filled my little hive,
If that I should idle be;
No, I can not play with thee."

"Little dog, how fast you run;
Stay, I want a bit of fun!
In the daisied fields I go,
Wilt thou follow?"

"Idler, no!

I've a master good and kind,
Pleasing him, I pleasure find;
Now I haste his home to guard,
Wherefore then my steps retard?
If unfaithful I could be,
Would he feed and care for me?"

"What, thou silly, tiny ant,
Canst thou with that burden want?
How you wander to and fro!
Come and play with me."

"No, no!

Ere the sunny hours are o'er,
I my little barn must store;
And with industry and care
For my little ones prepare;
If I pleasure now pursue,
What in winter shall I do?"

"Little bird, come hop this way.
Surely *you* will with me stay;
Toil and care are not for you—
Flutterer, tarry."

"No, adieu!

If my weary pinions rest,
It must be within my nest!
There my little unfledged brood
Now are chirruping for food;
Faint and hungry will they be,
If I tarry, child, with thee?"

"What, all busy! none I find
Unto idleness inclined;
All the path of duty tread,
Labor for their daily bread.
While they thus their hours employ,
Shall I be an idle boy?
No! I'll yield to wisdom's rule,
Gayly hasten on to school;
Turn again, my books, to thee!
Trifler! no, I will not be!"

—*Family Friend.*

THE mind has more room in it than most people think, if they would but furnish the apartments.

Microscopic Views.—No. 5.

SHELLY INFUSORIA.

BY UNCLE GEORGE.

HERE, Uncle George, I have one cup of sea-water with some delicate soft moss in it, which I cut, carefully, letting it float into my cup, as you told me, without touching it; and here I have green "frog-spittle," I call it, that clings to the rocks and weeds in the brook, and with this I have some water-plants from the pond."

"Very good, Willie; we shall have business enough for one short hour, with the least imaginable fraction of your ample collection. In the first place, let us clip carefully a little of this sea-moss, and floating it open on our glass with a drop of the salt water, look for wonders. Here they come already; Jennie, what have we here?"

"Oh, Uncle George, if you have not been robbing the sea-nymphs mail-bags, I don't know what you have done! for here are letters all sealed with golden sealing-wax, and done up in beautifully figured envelops, and some of them look very plump and full of news, as they turn up sideways in the moving water."

"Love-letters, eh, Jennie, from the fairy mermen to the sea-nymphs? I guess, coz, your fancy is keener than your eyes."

"Not at all, Willie, look for yourself; you can almost see the writing, they look so clear, and so like real envelops, well-filled."

"So they do indeed, only some of them are folded like clowns' letters, the wrong way; and here is one that has two seals—mighty private, I suppose. What can they be, though, really?"

"Let me see them on the glass before they are magnified."

"Yes, Johnny, with pleasure, if your eyes are keen enough; but as the objects are not more than the five-hundredth part of an inch in breadth, I think even your bright eyes will not detect them."

"O dear, there is nothing there but a little weed!"

"No, not to your eyes; but look here, while I venture an explanation. These beautiful letter-shaped creatures are really living animals, encased in a transparent shell, which in form resembles a folded envelop, stamped with parallel lines, sometimes across, sometimes lengthwise. The spangled sealing-wax which seems to close it, is no doubt the living inhabitant of the shell, or, more probably, the family of living creatures which inhabit it. Some of these you will notice are much larger than others, and though the power

of our glass does not develop any organs, you will see the whole mass is separated into globules of yellowish green, which are probably the individuals of the family. The double letter which you find with two seals, indicates a peculiarity which you have not yet discovered in these minute races of animals—a power of multiplying by *splitting themselves*, some lengthways, some across, and some in both ways.”

“Well! that is a new rule, to do multiplication by division!”

“Just the method many of these little creatures adopt, both to multiply themselves and *add* to their race. This oblong square, if we may call it so, is ruled nearly, and often quite, across, with some twelve or fourteen parallel lines, at the central one of which separation commences. The golden globules of organic life, parting into two clusters, retreat to the middle of each half, which makes another whole, to go through the same course when it becomes mature.”

“Here’s one of your pretty shells fastened by a thread at one corner to a sprig of sea-weed. O dear! now I’ve moved it a little, I see a whole, great, long chain of such creatures, looking as if all the cards in mother’s card-rack were strung together by the corners.”

“So Johnny has not looked so long for nothing. That beautiful chain of minute creatures in their ribbed and dotted shells is one of those very curious combinations of life that we can only discover by the microscope. This is called the zig-zag animalcule, from the peculiar manner in which they are united.”



ZIG-ZAG ANIMALCULES.

“They are all ruled off like little ladders in a picture; how very, very delicately!”

“Yes, Jennie; but the multiplicity of those cross lines could not be represented in a picture, for they occur at a rate of no less than fifteen thousand in an inch of space. The skeletons of this animalcule have been found in solid rocks, where they must have existed for untold ages. The shells themselves are separate, but held together during life by the fleshy fibers of the animate inmates. Count the links of this living chain, Fanny.”

“There are twenty-five in this; but some are only half length, making an exact square.”

“Many of them are so, that I have found; but in one chain I counted sixty-two individuals, showing an unbroken line of genealogy through as many generations, back to the parent stock, which still clung to the little weed he was created on.”

“Add a drop of water and shake open, with a needle, the thicker”

branches of this delicate moss. Now I see indications of a plentiful supply of radiated shells, that spread like the ribs of a fan or the spokes of a wheel."

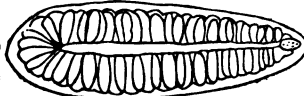
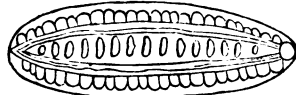
"Ha! ha! here we have them, I guess, for I see fans enough for all those tiny sea-nymphs who lost their golden-sealed letters; beautiful fans with crystal folds, and with starry flowers upon them. Look, Johnny, look."

Ho! and here's a picture of my kite, with the string all gone, but a little bit; and here are little golden boats, and silver canoes, with little men in them, sailing along slow—"

"Slowly."

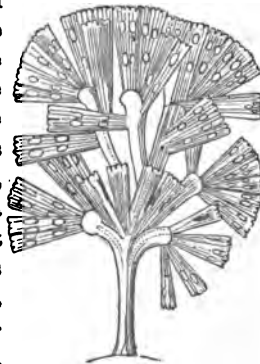
"Yes, slowly, in among the great darting monsters, that knock 'em round—but the little fellows don't care for it."

"Johnny, you are as good at a name as if you had studied Latin enough to make you unintelligible to every body but the schoolmaster. Those golden and silver shells, like sharp canoes, and blunted boats, are what the wise call the "Navicula," which is Latin for "little ships;" so our little Johnny has only to translate his names into something too wise for common folks, to make them very scientific.



NAVICULA.

"Your spangled kite and Jennie's flowered fans, are fragments of the palm-shaped animalcule, a very beautiful species of living creatures, radiating like the leaves of a palm tree, from a common trunk. These animals increase their race by division of the individual, lengthways of the shell, and both halves still cling to the trunk. Here we have the trunk itself, from which these have been torn; and now, to complete the tree, only imagine all the branches to be covered with this shelly foliage, as this one branch is covered. Perhaps we shall, by careful handling, be able to discover a perfect palm-shape; but for the present we will look at some of the very curious creatures in Willie's cup of fresh water, only adding that a single shell of these fan-shaped palms is about the one-hundred and twentieth part of an inch in diameter."



FAN-SHAPED ANIMALCULE.

"I KNOW, BUT I CAN'T THINK."

BY ANNE P. ADAMS.

I KNOW, but I can't think," said Clara Brooks in reply to a question from her teacher in History.

"Have you any evidence that you *know*, if you *can not* think, my dear Clara?" said Miss Smith, gently.

Clara blushed, and said, a little pettishly, "I am *sure* I know the answer, if you will but wait a moment, Miss Smith."

Very kindly and patiently Miss Smith waited, while Clara searched every corner of her brain for the missing fact. Alas! she sought in vain, it was not there. Without further remark, Miss Smith put the question to another pupil, and received promptly an answer which showed perfect familiarity with the lesson.

Clara burst into tears. It was not because she had never missed in class before, for she had frequently annoyed her teacher by the same reply, "I know, but I can't think;" and, as in this case, *time* to think had availed her nothing, for that of which she wished to think had found no lodgment in her brain. She was particularly mortified now, because the question she had missed was answered by Sophia Bond, whom she had always looked upon as her inferior, and many a time laughed at because she was so slow.

Clara was a bright, quick scholar, fully conscious of her abilities, and rather proud of them. She liked the reputation she had acquired, of being able to learn a lesson in less time than any of her classmates. She was highly gratified one day, when Anna Crane said to her, "When *do* you learn your lessons, Clara Brooks? nobody ever sees you studying."

Clara had little respect for those whom she thought less gifted than herself. Intellect she regarded as the highest good. In comparison with it, beauty and moral worth were lightly esteemed. Poor Clara made a great mistake here, for the possession of pure, cold intellect without goodness of heart is little enough to be desired.

In the sight of God, a poor ignorant person, who knows no more than to understand and do his duty to his Maker and his fellow-men, stands higher than one who is familiar with all science, but does not recognize and practice the simple truths of the Bible. Besides, if Clara had been familiar with the history of the greatest men who ever lived, she would have known that the loftiest intellect among them all did not attain to greatness without an effort.

There is no such thing as a "royal road to knowledge," over which one may glide smoothly, and almost unconsciously. The finest minds meet with obstacles, and difficulties, and discouragements which demand patient and persevering toil. And those whose success is most to be envied, are the ones who have worked hardest to attain it, and who are not ashamed to have it known that they have labored.

Clara's ambition was to *seem* rather than to *be* a good scholar. She had no love of knowledge for its own sake. All her energies were bent upon making a show. In two years more her school days would end, and she would enter society. She was plain in person, and perhaps from that cause she spoke lightly of beauty. She had enough good sense to know that her father's wealth would give her a claim to distinction which a thousand accidents might suddenly deprive her of. She therefore fell back upon the really fine intellect with which she was gifted, and resolved that this should distinguish her, that she would shine a "bright particular star" in the galaxy of mind.

But Clara's weakness and vanity stood in the way of the accomplishment of her wishes. A simple desire to improve her talents to the utmost, that she might thereby honor God and do good, would have aided her far more. Now, she was superficial, and, as we have seen, her daily lessons were sometimes imperfectly learned, simply because she wished her schoolmates to think she was not obliged to study.

Sophia Bond, upon whom Clara bestowed so much gratuitous contempt, was the only daughter of a poor widow, who labored hard to gain food for her family, and to keep Sophia in school till she should be fitted for a teacher. She had four sons, all younger than Sophia, and it was a pet wish of the good sister to aid her brothers in acquiring an education. For this, she studied early and late; for this, she never allowed an opportunity for learning something to pass unimproved; for this, chiefly, she was ambitious to become the best scholar in school.

Sophia was determined not to be a commonplace teacher. She had fixed her aim high. She resolved to qualify herself for teaching the higher branches in the first schools in our country. And to do this, she knew that she must labor very hard, for she was well aware that she had been gifted by nature with only very ordinary abilities. She admired Clara's talents; perhaps, now and then, an envious feeling arose in her breast, but it was speedily dismissed,

and she would say to herself, "Clara learns very quickly, and I very slowly; she is brilliant, and I am dull; but I have energy and patience, and am willing to work, no matter how hard; perhaps I can keep up with her, at all events I'll try."

Sophia met with many hinderances. She had little time at home for study; her mother needed all the assistance she could give, but she had taught her daughter one good lesson—to "take care of the minutes, and the hours would take care of themselves;" and the result was, her lessons were always thoroughly learned; she never tried the patience of her teacher by saying, "I know, but I can't think."

This term, for the first time, Clara and Sophia were classmates in all their studies. The girls were very nearly of an age, but Clara had enjoyed so much greater advantages than Sophia, that, until now, she had been a little in advance of her. Both were studying Geometry. One day Miss Smith called the class to recite, and, as was her habit, named to each member of it the *number* of the proposition she wished her to demonstrate. Each young lady was expected to draw upon the blackboard, without looking at her book, the figure illustrating the proposition, and to explain it when called upon.

While the girls were busy drawing their figures, Mr. Bailey, a clergyman of the town, came in, as he frequently did, to sit an hour and listen to the recitations. Very many of the pupils were members of his congregation, "the lambs of his flock," as he called them. Their parents were his valued friends, and he felt a deep interest in the children who were growing up under his eye to take their places. He seldom left the school-room without making some remarks, sometimes praising the girls, and sometimes gently criticising what he had seen amiss.

Miss Smith's face beamed with pleasure as she welcomed him on this occasion, for she was warmly attached to him, and felt grateful for the kind interest he manifested in her school. He took the seat she offered him, and looked round upon the happy faces which his coming had flushed with delight. The recitation proceeded.

Sophia was first called upon to recite. She went through the demonstration in a calm, quiet manner, at once modest and self-possessed.

When Clara's turn came, she blushed and hesitated so long that Miss Smith said, "Are you not prepared to recite, Clara?"

"Yes, Miss Smith," she replied, "I know the proposition you gave me perfectly well, but I can't think."

Miss Smith looked grieved, but this time she did not wait, and during the remainder of the recitation, Clara, with her face crimson with mortification, stood vainly endeavoring to keep back the tears which her wounded vanity caused to flow. She would rather any one else should have witnessed her failure than Mr. Bailey, for she was particularly anxious to have him think well of her scholarship.

After two or three more classes had recited, Miss Smith asked Mr. Bailey to make some remarks, and he at once complied. Among other things he said—and I wish I could put on paper the rich, beautiful tones of his voice, and his beaming looks of love :

"Remember, my dear young friends, that the whole purpose of your education is not to fit you to shine in society. You are not to acquire a mere external polish, and a smattering of knowledge which shall give you a reputation you do not deserve. The chief end of your studies here is mental discipline, a discipline which shall fit you to fill with honor the stations which are awaiting you in life.

"Let me advise you always to do well whatever you undertake. Do not pass over a single lesson until you have thoroughly mastered it. Learn it so perfectly that you will not only be sure you know it, but also sure that you can call up this knowledge whenever you want it. Knowledge that one can not think of when it is needed, is of no benefit to him. Indeed, I don't know how one can properly be said to *know* any thing which he can not by any effort of the will recall to memory. Be very careful to have your knowledge within reach. Be very careful, also, to know *certainly* what you pretend to know. Let there be no *guessing* about it. It is better to make a very few facts entirely your own, than to know a great many imperfectly."

The good minister said many other things that I should like to repeat to you if I had time. I hope you will make as good a use of his remarks as Clara did.

After school was over, Miss Smith detained her a few moments, and conversed seriously with her about her faults, and when they parted, Clara promised with tearful eyes to remember what Mr. Bailey had said. And she kept her word. She was never again heard to say when questioned in her classes, "I know, but I can't think."

When two years had expired, she and Sophia, to whom meantime she had become a warm friend, each received a diploma, and left school, the one to be the brightest ornament of the refined circle in which she moved, the other to enter upon the laborious life of a teacher in a distant city.

"Did she?" exclaimed Walter; "I didn't see her."

"But I did," Emily said; "I sit in the seat next hers. She did not lay her head down on the desk to cry; but I saw her hand tremble, and the color came in her face, and a minute after I saw tears falling on her book. And I thought," Emily continued, quite forgetting in her eagerness the presence of a stranger, "how I should feel if they should all laugh at Walter, only once, as they do at Edmund every day. I should never want to go to school any more."

"And now," said the gentleman, passing his hand caressingly over Emily's head, "let us hear your reasons for thinking that it is wrong to laugh at this dull scholar that you have been telling us about."

"It is wrong, sir," Emily promptly replied, "because it hurts his feelings and discourages him, if he tries to learn. And it makes his sister unhappy, and—"

"And what else?" inquired the gentleman, in an encouraging tone, as Emily hesitated and looked down.

"I was thinking, sir, that it was not doing as we would be done by, as the Bible says we should do; and, about the parable of the talent, sir."

"Well, what about that?" was the next question.

"Why, sir, it is not our fault if we have only one talent, if we make the most of that one; and if we have ten, and some one else has only one, we have no right to be proud because we have more than he has."

"Why not?"

"Because," Emily said, "we have only what is given us; and if he has not had so much given him, it is not his fault. And so, sir, we ought to pity poor Edmund, and try to help him, instead of laughing at him. At least it seems so to me;" and Walter smiled at the additional clause, that told in what direction his sister's thoughts were tending.

"Very well argued, my little girl," said the gentleman, kindly. "Now, Walter, what have you to say to this?"

"I begin to think Emily has the right side of the question," Walter replied; "and I am not enough of a lawyer to defend the wrong side successfully."

"You give the case up, then?" inquired the gentleman, smiling.

"I might as well," Walter replied. "But we have left the gate open, Emily," he added, taking his hat from the table. "Suppose we go and shut it, and finish our work in the garden."

The children went out together, and on resuming their work in the garden, Walter said to his sister, "I have a plan in my head about Edmund."

'What is it?' she inquired.

"I will tell you after I see how it works," he replied.

Now, my young friends, you have heard the conversation of Emily and Walter, how will you answer their questions? *Is it right, or is it wrong?*

SCHOLAR'S SONG.*

[AIR.—"Before all lands in east or west"]

BY MRS. J. H. HANAFORD.

We welcome those who cheer our way,
Our parents and dear friends to-day,
Whose hearts with love are glowing;
We trust you will be gladdened here,
As you to us give list'ning ear,
While progress we are showing.

As flowers the dews of night receive,
And flourish with the strength they give,
So have our minds, though youthful,
The dews of sweet instruction drank,
From teachers whom we love and thank,
With hearts all warm and truthful.

Henceforth, our motto shall be "On,"
We'll pause not till our labor's done,
To Wisdom's prize aspiring;
And then, through life, we hope for joy
From all which here our hours employ,
Our youthful hearts inspiring.

Then welcome once again to you,
To all our highest int'rests true,
In all our joys e'er joying,
And peace be with our teachers dear,
When we no more assemble here,
With them our time employing.

* Composed for a school in Nantucket, Mass., and sung at the examination.

Children's Department.

TROUBLESOME CHILDREN.

THIS title is not a very pleasant one, and some of my young friends, I dare say, will not like to read this article. Well, I will excuse you, *if* you are always good children, and never troublesome.

"How shall we know what you call troublesome, Mr. Editor?" some of you may exclaim.

Let me tell you what to do in this case: Read the interesting story which we have copied from the *Child's Friend*, and if you can then say you are *not* troublesome, you may know that we did not print it for you, but that we should like to have you show it to some other little boy or girl, who may be made better by reading it.

Children are troublesome in various ways. Some are continually teasing their parents and friends—May I do this? or, May I do that? or, as I have often heard children do, calling "Mother! mother! mother!" till even *her* ear was weary with their voices.

Some troublesome girls and boys interrupt older persons when they are talking. They ask questions or make remarks, so that their elders can not hear what is said. This is very rude and very annoying.

Other troublesome ones complain—"It is so hot, I am almost melted," or else, "Oh dear! how my feet ache with the cold!" or, "I've cut my finger, and how it aches!" and make thousands of other complaints.

Think a minute, little grumblers. If you live to grow up, you will have, probably, very severe pain to bear. You will, very likely, be obliged to endure more burning heat and sharper colds. If you complain now, what will become of you then? You need not say that you will be older then, and better able to bear these things. You will not be better able, unless you accustom yourself to patience now.

A troublesome child may be amiable, generous, and obedient, and yet have very few friends, because her disagreeable ways will make her appear unlovely.

"Last summer, as we were riding in the cars through the beautiful Berkshire hills of Western Massachusetts, we saw a very happy-looking little girl, sitting all alone by herself, with a book and a large doll. We called her, and began to talk with her. She told us, that she, with her father and sister, had been to visit their grandparents, and were now on their return home.

"Her father seemed to fear she would trouble us, and called her back to her place. We soon, however, made his acquaintance, and that of the younger child, and had occasion to remark upon their quiet, pleasant, agreeable manners.

"It was noon when we crossed the boundary line into the State of New York; and the ride from that point to Albany was very warm, dusty, and uncomfortable; but our little friends did not complain, though their faces, flushed and covered with cinders, showed that they were as uncomfortable as we were.

"Through the whole day we were their companions, and could not sufficiently admire the thoughtfulness of the elder sister, who, at every change of cars, looked back to see that nothing was left, and questioned her father about various articles of their baggage.

"In the afternoon we began to tell them stories, and great was their delight; but, when the noise of the cars was too loud for us to speak with ease, they did not tease, as some children would have done, but waited till we came to a stopping-place.

"We were very sorry to leave the dear little girls, at nightfall, at one of the great inland towns in the heart of New York; and if this ever reaches them, Alice and Carrie L—— may be assured we often speak of that day's journey with the greatest pleasure.

"Now what made these little girls so attractive? It was their kind, cheerful, gentle spirits, and their freedom from all annoying, fretful, disagreeable ways. A long day's ride

in the cars is a pretty good test of a child's disposition; and we fear all our little readers would not prove as agreeable companions as Alice and Carrie. But try, dear boys and girls. Don't be troublesome, and, in nine cases out of ten, you will be agreeable."

THE BEE AND THE CRICKET.

BY GEORGE KENT.

A BEE, one day, in arbor lay,
Or rather was fond of humming—
Busy and blithe, taking his tithe
Of "anise, mint, and cummin."

A Cricket near was in high cheer,
Chirping in lively ditty;
The work as drudge he thought "all fudge,"
For toil he felt no pity:

'Twas summer time; each in his prime,
One bent on mirth and pleasure;
Wise to provide, the other plied
His task, for winter's treasure.

The summer's day had passed away
And autumn brought "Jack Frost;"
Each in his turn began to learn
Of time to count the cost.

The Bee could show of cells a row
Of well-filled sweetest honey;
The Cricket's song had brought along
No food "for love or money."

The winter came—for very shame,
The Cricket was found dodging
In every nook where he could look
For miserable lodging.

The bee was hived, and joyous thrived
In comfortable quarter;
Among his friends his winter spends
In pleasure, as he ought to.

Now which, think you, on sober view,
The wisest part has acted?
If you have doubt, don't find it out
As cricket poor, in fact, did. —*Little Pilgrim.*

Editor's Table.

WHAT IS DIVISION?

ONE of our Western correspondents, a practical teacher, residing in Illinois, frequently sends us criticisms and queries concerning the formulas used by teachers, and also the modes of illustrating the various branches taught in common schools. He is a *thinking teacher*, and one not satisfied with stereotyped forms, even though found "in the book." He has recently favored us with a few queries concerning Division, which we shall present in this connection. They are more properly suggestives than substitutes for other formulas. Of them the writer modestly says: "I do not know that the distinction made in the following examples is recognized in any of our text-books. It is submitted for the consideration of teachers."

What is Division? "Finding how many times one number contains another," say our text-books.

Well, how many times does 17 contain 8? Why, $2\frac{1}{2}$ times. But what do you mean by $\frac{1}{2}$ of a time? I mean that 8 is contained in 17, 2 times and $\frac{1}{2}$ of another time.

But $\frac{1}{2}$ of a time is $\frac{1}{2}$ of something very indefinite. It can only be explained thus: either, 8 is contained in 17, 2 times, and $\frac{1}{2}$ of 8 is contained once in the remainder, or 8 goes in twice and $\frac{1}{2}$ in again, leaving $\frac{1}{2}$ out. Into 5, 8 could not get, but it could get $\frac{1}{2}$ in, leaving $\frac{1}{2}$ out.

Is not dividing 17 by 8 finding how many eights there are in 17? And would not a better definition of Division be, *Finding how many of one number are contained in another?*

But this is not all. For 12 cents you can buy as many oranges as there are 4 cents, the price of one orange, in 12. But we can not say that one orange will cost (if 3 cost 12 cents) as many cents as there are 3 oranges in 12 cents. And if we drop oranges and cents, and say that one orange will cost as many cents as there are threes in twelve, although the process will always be true, yet there is a link of logical reasoning dropped. Are we not searching to find *what number of cents* are contained 3 times in 12 cents? If so, our reasoning should show that the number *when found* will equal the number of threes in 12. This may be done by a tedious process. We conclude that Division sometimes, then, is finding *what number is contained in another a given number of times*. This number will be found by separating the given number into equal parts.

The examples in Division naturally fall, then, into two classes, each of which requires a separate formula for its solution. The first answers to the old definition, and is the one, under some modifications, used by nearly all teachers. The second requires the use of a fraction. Would not the following be improved formulas for Division?

1. At 7 dollars each, how many chairs can I purchase for 56 dollars?

Formula. As many chairs as there are 7 dollars in 56 dollars; there are 8. Answer, 8 chairs.

2. James divided 30 apples equally among six boys. How many apples did each boy receive?

Formula. Each boy received $\frac{1}{6}$ of 30 apples, which is 5 apples.

SOMETHING FOR THE LITTLE FOLKS.—Returning from our dinner a few days since (editors eat dinners), we were pleased to find, on our office-desk, a whole “Library for Children,” and, what is more, it was neatly put up in a little case. On removing the books from the case, which was made of pasteboard, we found the library to consist of *six numbers of the Eagle Primer*, by our old friend, J. S. Denman. Eagle Primer No. 1, is a treasury of pictures, representing a great variety of birds, animals, children playing, shops, cars, houses, and many other things. It is designed for the use of children while they are too young to learn to read. No. 2, contains the alphabet in fancy pictorial, and other letters, and a few easy lessons, illustrated by numerous engravings, designed to be used by children in learning the first principles of reading. Nos. 3, 4, 5, and 6, each contain easy, instructive, and progressive lessons, all beautifully and profusely illustrated, and so arranged as to lead the little learner forward by simple and regular steps from one lesson and book to another, through the whole series. Each number of the Primer contains 82 pages.

If any of our readers wish some *useful* primers for their little brothers and sisters, or parents desire to procure such for their children who are too young to read in *THE STUDENT*, we commend to them “Denman’s Library for Little Children.” If desired, we will send the whole by mail, including case, postage paid, for 40 cents.

MICROSCOPIC WONDERS.—The world is full of beauty, and of interesting objects which are overlooked by the multitude. Now and then some lover of nature reveals new wonders to us by means of the microscope, and we are shown a thousand curious objects which we never imagined to exist in earth, air, or water. The articles by Uncle George, published monthly in *THE STUDENT* unfold to the readers a great amount of interesting information concerning the beauties and curiosities of the microscopic world. If any of our readers have neglected them, we trust they will do so no more after reading one or two numbers. Brocklesby, in his “Microscopic World,” has revealed a multitude of beauties. It is a highly interesting work, profusely illustrated. To its publishers, Messrs. Pratt, Woodford & Co., New York, we are indebted for a few of its illustrations used in the articles by Uncle George. Should any of our readers desire that work, we will send it by mail, postage paid, for \$1 12.

Our Museum.

SEPTEMBER is so called from its being the seventh month of the old Roman year as established by Romulus, which began with March. It is the ninth month of our calendar. Several of the Roman emperors gave names to this month in honor of themselves; but the name of September has outlived every other appellation. On the 28d of this month our days and nights will be of equal length, when the sun will rise and set at six o’clock.

THE GRAMMAR (unpublished of course) of the schoolmaster who made an unsuccessful tour to the mines of California adopts the following mode of comparison: positive *mine*, comparative *miner*, superlative *minue*.

A RECOMMENDATION given to a servant girl, by a person who meant to compliment her very highly, read as follows: "This is to Certify that Isabel Weir served with us during the last half year, and found her in every respect *Credible*, and *free of Nothing* that was *wrong*." Rather a doubtful character.

PENNY is derived from the Latin *pecunia*, money. Previous to the time of Edward I. the penny was struck with a cross, so deeply indented in it that it might easily be broken into two parts, which were called *half-pennies*, or into four parts, called *four things*, or *farthings*. Edward I. commenced the coinage of round half-pence and farthings.

MEASURES AND WEIGHTS.—While learning the tables of measures and weights found in Arithmetics, we often wondered how people ever came to have any such tables, and who made them at first. It is not so much of a mystery to us now, how there came to be such tables, though we have never learned who formed them.

When we remember that the early inhabitants of the world must necessarily have had occasions to express to each other some ideas of distances, and also of weights, we perceive that it must have been natural that they should select as a measure something common to every person; accordingly we find that the length of the arm from the elbow to the end of the middle finger became a universal measure, and was called a cubit. Besides these were *hand-breadths*, the width of the hand, and the *foot*, the length of a man's foot. In time, it became necessary to have shorter and also longer measures, and we find the length of the first joint of the thumb used as an *inch*, and the inch divided into *three barley-corns*, being equal to the length of three grains of barley. Thus came the first forms of measurement, which have been modified and improved by succeeding generations till we have our present "long measure."

Measures of weight, again, had a like derivation. Seeds seem commonly to have supplied the unit. The original of the carat used for weighing in India is a *small bean*. Our own systems, both Troy and Avordupois, are derived primarily from wheat-corns. Our smallest weight, the grain, is a *grain of wheat*. This is not a speculation, it is an historically registered fact. Henry III. enacted that an ounce should be the weight of 640 dry grains of wheat from the middle of the ear. And as all the other weights are multiples or sub-multiples of this, it follows that the grain of wheat is the basis of our scale.

So natural is it to use organic bodies as weights, before artificial weights have been established, or where they are not to be had, that in some of the remotest parts of Ireland the people are said to be in the habit, even now, of putting a man into the scales to serve as a measure for heavy commodities.

While speaking of this subject it may be well to add that at the present day we have a *standard for linear measure* which has been fixed with great accuracy. It was determined from the length of a *pendulum* which will vibrate seconds in a vacuum at a temperature of 32°. Experiments were made at Columbia College, in New York city, and the length of such a pendulum was divided into 39,101,688 equal parts, and 36,000,000 of these parts were adopted as the standard length of a yard by the State of New York; and this corresponds with the standard yard of Great Britain, which was determined by a similar process. As a yard is divided into 36 inches, it is easy to arrive at an accurate measurement of an inch. And should the standard length of a yard

ever be lost it could be recovered by resorting to this experiment with the pendulum.

A TURKISH WILL.—How to divide seventeen horses among three persons, giving the first *one half*, the second *one third*, the third *one ninth*. A Turk left to his eldest son one half of his horses, to his second son one third of his horses, to his third son one ninth of his horses. He had seventeen horses in all. The executor did not know what to do, as seventeen will not divide by two, by three, nor by nine. A Dervish came up on horseback, and the executor consulted him. The Dervish said: "Take my horse and add him to the others." There were then eighteen horses. The executor then gave to the eldest son one half, 9; to the second one third, 6; to the third son one ninth, 2; total, 17. The Dervish then said: "You don't want my horse now, I will take him back again."

CLASSICAL PUN.—The completest pun on the records of literature is produced in the following words, which were inscribed on a tea chest: *Tu Doces*, which is the second person singular of the verb *docceo*, to teach; and when literally translated, becomes Thou Tea-chest.

ALLITERATION, OR THE SIEGE OF BELGRADE.

An Austrian army awfully arrayed,
 Boldly by battery besieged Belgrade;
 Cossack commanders, cannonading come,
 Dealing destruction's dire, destructive doom;
 Every effort engineers essay,
 For fame, for freedom fight, fierce furious fray;
 Generals 'gainst generals grapple; gracious God,
 How honors Heaven heroic hardihood!
 Infinite, indiscriminate is ill;
 Just Jesus, instant innocence instill!
 Kindred kill kinsmen, kindred kindred kill—
 Labor low levels largest, loftiest lines;
 Men march 'midst mounds, moats, mountains, murd'rous
 Now noisy, noxious numbers notice naught
 Of outward obstacles o'ercoming ought;
 Poor patriots perish, persecution's pest!
 Quite quiet Quakers, quarter, quarter quest.
 Reason returns, religion, right redounds,
 Suwarrow, stop such sanguinary sounds.
 Truce to thee, Turkey, terror to thy train;
 Unwise, unjust, unmerciful Ukraine;
 Vanish vile vengeance; vanish victory vain.
 Why wish we warfare, wherefore welcome won
 Xerxes, Xantippus, Xavier, Xenophon!
 Yield ye, young Yaghier yeomen, yield your yell.
 Zimmerman's, Zoroaster's, Zeno's zeal
 Again attract; arts against arms, appeal;
 All, all ambitious aims, avaunt, away!
 Et cetera, et cetera, et cetera.

ANSWER TO ENIGMA.—July No. "*Now Before You.*"

Items and Events.

SOLAR PHENOMENON.—On the morning of the 11th of August there was witnessed in New York and vicinity an unusual and beautiful solar phenomenon. The sun appeared to be surrounded by several rings of different shades. Two rings, with the sun nearly in their centers, appeared, and intersected each other at two opposite points. The inner circumferences of the rings within the points of intersection were dark, but beyond the points of intersection they were luminous. Several other circles and arcs of circles appeared with the sun either in their circumferences or near one side. Under the sun was the appearance of an inverted rainbow. The phenomenon was exceedingly curious and interesting. The appearance is very unusual in this latitude. This phenomenon is believed to be caused by the refraction of the sun's rays as they pass through crystals of frozen vapor floating in the upper regions of the atmosphere.

DEATH OF "UNCLE SAM."—During the war with England in 1812, Messrs. Samuel and Ebenezer Wilson, active and enterprising citizens of Troy, N. Y., being extensive dealers in pork and beef, furnished large supplies for the northern army. Samuel Wilson was commonly known and spoken of as "Uncle Sam." On the heads of the barrels designed for the army he had branded the letters "U. S.," denoting that they were for the government of the United States; but the workmen were not accustomed to that name, or its abbreviation, and they at once supposed it to mean "Uncle Sam" Wilson. This interpretation soon became common throughout the army, but finally it lost its local signification, and from that period has been the familiar term for the "United States." A few weeks since this same Samuel Wilson died at Troy, N. Y., aged 84 years.

DROUTH.—During the past month there has probably been one of the most extensive drouths experienced in this country for many years. It has extended over nearly two thirds of the Union, blighting the prospects of farmers. In many sections extensive fires have also raged in the forests, and the mountains, and through the swamps, in consequence of their dry state, destroying much valuable timber, and filling the air with smoke for miles around. Corn, potatoes, and late summer crops have suffered very much. In some counties pastures have dried up, and farmers are obliged to fodder their cattle.

CHOLERA.—This scourge, which has been so extensive in its visitations throughout the entire country, in rural localities as well as in cities, has very much abated, and it is hoped that before the close of the present month it will have disappeared entirely. There has been much less of it in New York city this season than in 1849. The whole number of deaths from cholera in this city during the present season has been a little less than 2,000, and that out of a population of about 700,000.

OSBERLIN COLLEGE.—The annual examination of this institution took place during the week, commencing on Aug. 14th. About 600 students were examined. Among the graduates were twelve young ladies; one of whom received the diploma of A. B. The abbreviation used to stand for "Bachelor of Arts," but we suppose it has become so changed by the "progress of the age" that it may also now be defined "Mistress of Arts." The tuition in Oberlin College is only \$6 a year. Board \$1 25 per week.

Literary Notices.

Books noticed in *THE STUDENT* may be obtained by persons residing in any part of the United States, at their own post-office, free of postage, by inclosing the price here given, in a letter, post-paid, and directing it to N. A. CALKINS, 848 Broadway, New York.

OUTLINES OF HISTORY: *Embracing Ancient and Modern History*; Illustrated by numerous Geographical and Historical Notes and Maps. By Marcus Wilson. Published by Messrs. Ivison & Phinney, 178 Fulton Street, New York. 12mo; 605 pages. Muslin, with leather back. (School Edition.)

A more comprehensive, and admirably arranged outline of the History of the World we have never examined. It is far from being a mere compilation of isolated facts—it is a well-written and connected history of all the principal events of the world. These are so interspersed and explained with maps and notes, Geographical, Biographical and Historical, that the work is made one of great interest and value, both to the student, and for refreshing the memory of those who have studied more voluminous histories. In speaking of the wars with which ancient history so much abounds, Mr. Wilson has happily omitted the details of human slaughter, and given us an account of their causes and consequences among the nations of the earth. The author is well-known for his accuracy in history, and in commending this work to teachers and others, we feel the satisfaction of doing those a kindness who may thereby be induced to procure and read it. We will send it by mail, postage paid, on the receipt of \$1 25—the publisher's price.

BERTHA AND LILY; *Or, the Parsonage of Beech Glen.* A Romance. By Elizabeth Oakes Smith. Published by J. C. Derby, 119 Nassau Street, New York. 12mo; 386 pages. Muslin.

This work is an embodiment, in the form of romance, of the author's convictions and views on questions relative to social life and humanity; and though it is not pervaded with that spirit of destruction which characterizes too many, so called, reformers, yet it is radical on some points. The work is written with much ability, but it contains sentiments with which many can not sympathize. Its illustrations are beautiful and appropriate, and the book is issued with excellent taste. Price, by mail, \$1 25.

KATHARINE ASHTON. By author of "Amy Herbert," "The Experience of Life," etc. Published by D. Appleton & Co., New York. Two volumes, 12mo; 360 pages each.

The authoress, Miss Sewell, is an English lady of much popularity as a story writer, whose works are pervaded with excellent moral lessons. Katharine Ashton is an interesting

story of English country life, in which are noble examples of self-control, charity, and true aims of life. Price, by mail, paper cover, 75 cents a volume; muslin, \$1 00.

FRUITS AND FARNACEA—THE PROPER FOOD OF MAN. Being an attempt to prove, from History, Anatomy, Physiology, and Chemistry, that the Original, Natural, and best Diet of Man is derived from the Vegetable Kingdom. By John Smith. With Notes and Illustrations. By R. T. Trall, M. D. From the Second London Edition. Published by Fowlers & Wells, 308 Broadway, New York. 12mo; 314 pages. Muslin.

The title-page gives a full and faithful description of the character of this work, and we shall only add, that those who desire to investigate the subject of which it treats, will find it ably written, and abounding in valuable information on the important subject of diet. Price, by mail, \$1 25.

A COMPENDIUM OF PHONOGRAPHY. By Andrew J. Graham. This is an exposition of the Principles of Phonetic Shorthand, in a small space, yet sufficiently full to be clearly and easily understood by the learner—moreover, it is so cheap—only ten cents per copy—that any person can procure it, and learn to write and read phonography. It is prepared by an experienced teacher and reporter in Phonetic Shorthand, and contains modes of explanation and illustrations which are sanctioned by experience. The whole is comprised in a 12mo pamphlet of 16 pages. We will send it by mail, postage paid, for 12 cents.

THE NATIONAL MAGAZINE, devoted to Literature, Art, Religion. Edited by Abel Stevens. 96 pages monthly. Published by Carlton and Phillips, 200 Mulberry Street, New York. Terms \$2 00. To those who desire choice and high-toned literature, we most heartily commend the "National Magazine." Its articles are adapted to those who read for improvement, and its pages amply illustrated with excellent engravings.

PUTNAM'S MONTHLY.—Published by G. P. Putnam and Company, No. 10 Park Place, New York, terms \$3 00—is purely an American periodical, embracing original productions of the highest standard. It is designed for those who read and think, and to supply the wants of those who relish substantial literature.

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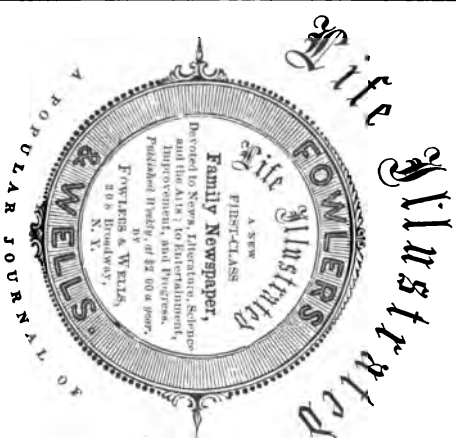
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No. 6.

THE STUDENT AND FAMILY MISCELLANY.

DEVOTED TO
THE DIFFUSION OF USEFUL KNOWLEDGE
And Home Instruction;
ALSO DESIGNED AS
A MONTHLY READER FOR SCHOOLS.

N. A. Calkins, EDITOR.



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TO CORRESPONDENTS.

L. B., of New York.—Your communication is quite acceptable, and we hope to hear from you again, as circumstances may permit.

B. G. C., of N. Y.—Your poetry *was* accepted; but by that we did not intend to say that it would appear in the next number. It may be some time before it will be published, as we may have other matter which is waiting, or which we choose to publish first. By an acceptance of an article, we mean that we deem it of sufficient worth for publication, and accordingly place it on our file, to be used when convenient. Your last two articles (prose) we have not had time to examine, but from a hasty glance on receiving them, think their adaptation to our columns quite doubtful.

J. G., of Ga.—We shall not use your article in its present form.

EVA G., of N. Y.—We must file your article with rejected manuscripts—subject not adapted to THE STUDENT.

J. S. G.—We hope to get time "to study" your article on Language; and should it prove interesting to us, and seem instructive to others, we shall publish it.

ENIGMAS.—We have received several enigmas, and shall examine them soon. However, we intend to publish none but those which are very good.

VESTA VIOLET, of N. Y.—Glad to hear from you again. Those who write well that which will teach those who read some important truth or useful lesson, are always welcome to our columns.

J. F. F., of Pa.—The lines by "Cornie" give evidence of thoughtfulness on the part of the writer, which will doubtless ripen into more valuable productions, but the one before us we do not deem suitable for THE STUDENT.

BUSINESS NOTICES.

Whose Subscriptions Expire with this Number.

All who subscribed for THE STUDENT during Volume Eight for one year only, and commenced with the number for November, 1853; also, *all* who subscribed for six months only, and commenced with Volume Nine, or May, 1854. None of either of these classes will be entitled to receive the magazine after this number. Should any such receive it after this month, we hope they will promptly inform us if they wish it discontinued, or remit pay for a renewal of the subscription.

THE STUDENT has many thousand friends who would feel sadly disappointed were a single number missed by

them. From these we often receive requests to continue the work after their subscriptions expire, and assurance that they will remit us the money. If, in complying with these requests, we should chance to send it to any who do not wish it continued, all that is necessary to secure its being stopped is to write us a letter immediately, requesting us to discontinue THE STUDENT sent to —, at —, giving your name, postoffice, and State. All numbers which we send you after receiving such a notice, postpaid, you shall receive *free*.

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NEW VOLUME.—The number for next month will commence Volume Ten. Now is an excellent time to subscribe and for forming clubs. We hope every teacher who receives this will endeavor to get a club in his school.

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THE MARCH OF MIND.

BY MILFORD BARD.*

"Look down, immortal Homer, from the skies,
And view another Greece in glory rise."

WRAPPED in the mantle of imagination the traveler stands, in gloomy meditation, amid the ruins of ancient Greece. He looks down the tempestuous tide of time and views the wrecks of ages and of empires. He stands, with indescribable emotions, upon the crumbling fragments of grandeur where the hall of wisdom once stood, and the thunders of eloquence were heard. There, arose the sun of science on Athens' lofty towers; and there, the sidereal orbs of learning illuminated the world.

It was in Greece that the human mind emerged from the night of mental darkness, and severed the galling chain of tyrannical ignorance. Liberty is the daughter of light; she came forth in all her glory in the gardens of Greece. She flourished, and mankind stood astonished at the sublimity of her career. But where now is the glory of Greece? Where now is the land of science and of song? Where now are her brave warriors; her illustrious statesmen; her immortal poets? They have gone down the rapid tide of time, and have ceased to exist but on the scroll of fame. The lamp of learning has been extinguished, and mental darkness rests upon the bosom of her land. Gothic ignorance now dwells upon the ruins of Oriental greatness.

In the march of mind, Rome rose on the ruins of Greece, to wave her scepter over the subjugated world. There, Virgil strung his lyre to sing Æneas' fame; and there, Cicero shook the forum with the thunders of his eloquence, and struck terror to the hearts of ty-

* MILFORD BARD is the *nom de plume* of one that possessed a beautiful and sublime imagination, and who reveled in the Elysian fields of flowering fancy and romantic truth. Among the scintillations from his poetical genius may be found some of the most touching and beautiful productions in our language. No one can peruse his "March of Mind," and feel its glowing eloquence, without a desire to re-read it, and know more of the genius of its talented author. It is in compliance with the repeated wishes of many who read this article several years ago, in the first number of THE STUDENT, and who desire to preserve it, that we have been induced to republish it, and to add a brief biographical note of its lamented author.

Dr. John Loffland, a native of Delaware, and for several years a resident of Baltimore, was the real name of "Milford Bard." In his early manhood he was the center of a brilliant circle in his native State. He seemed the fountain-head of a silver stream of poetry, spreading a halo of mental sunshine all around him. He learned to sip the sparkling wine at fashion's shrine; and in after years, when a sad disappointment came upon him, and his generous, loving nature

rants. Rome, then, was the mistress of the world, and on her walls waved the flags of all nations. The mighty Hannibal lifted his arm against her, but she crushed it; and Carthage, so long victorious, fell before her.

Cæsar then lived; his path was conquest, and dreadful was the fate of that warrior who dared the vengeance of his arm. But where now is Cæsar?—and where is Cicero? Alas, they have been murdered! And where now is mighty Rome? She has been tumbled over the precipice of faction and lost in the whirlpool of anarchy. A barbarian torrent has overrun the blooming gardens of Italy; the Goth and the Vandal have prostrated her glory forever. The brilliant sun of science, that arose on the gardens of Greece, was destined to shine on the ruins of Rome, and then to go down in the night of time to arise in another hemisphere.

In the march of mind, France, plunging in the vortex of a bloody revolution, arrests the attention. Napoleon rose, like a giant from his slumber, and seated himself on the throne of the Bourbons. He pointed the thunder of his artillery at Italy, and she fell before him. He leveled his lightning at Spain, and she trembled. He sounded the knell of vengeance on the plains of Austerlitz, and all Europe was at his feet. He was greater than Cæsar; he was greater than Alexander. But where now is the French Emperor? Where now is Napoleon Bonaparte? He has fallen from the throne of the Czars, on which he seated himself in Moscow. The tremendous military drama has closed, and the great tragedian has left the stage forever. His race was short, but it was brilliant—like the bright meteor that flames along the horizon for a moment, and then disappears. The Lion of England triumphed over the fallen Tiger of Corsica, but his fame is immortal.

The march of mind is now advancing on the shores of America. On the ruins of an Indian Empire a great Republic has arisen to illuminate the world. But where are the Aborigines of the western

was rudely crushed by a heartless creature, he sought the cup to drown the past in the dark waters of Lethe. Thus fell one so noble and gifted. Thenceforward his career was downward, step by step, till he became an inmate of a prison, and his society that of almshouse paupers.

Years passed, and he seemed at length to arouse from his degraded state, and endeavor to shake off the horrible plague. His efforts inspired his friends with hope, and he resumed his pen again with gratifying success. He now became an assistant editor of the "Blue Hen's Chicken," a weekly paper, published at Wilmington, Delaware. But he had become a slave to the demon of the bowl, and he felt the fetters still clinging to his soul. He knew and felt his danger from the temptations of the intoxicating cup, and often spoke of it with tears in his eyes and remorse in his heart. The closing years of his life were full of struggles and vacillations, and in 1849 disease laid him low in the grave.—ED. STURGEY.

world? A pilgrim bark, deeply freighted from the East, came darkening on their shores. They yielded not their empire tamely, but they could not stand against the sons of light. With slow and solitary steps they took up their mournful march to the West, and yielded, with a broken heart, their native hills to another race. Before the victorious march of mind, they have been driven from their native haunts, to the margin of the great Pacific.

The great flood of time will roll on until the Aborigines are sent from the face of the earth forever. Ere long, not one lone trace of them will remain, save the mausoleum of the warrior, and the page on which his exploits are recorded. The last child of the forest will soon climb his native mountain to view the setting sun of Indian glory. And there shall he bow his knee, the last time, to the sun as he sinks behind his lonely cottage, and worship the Great Spirit of the waters, and the genius of storm and darkness.

Where the council-fires blazed, the tall temple, dedicated to God, now glitters in the setting sun; and the river, once unrippled but by the Indian canoe, is now white with the sails of commerce. The plowshare hath passed over the bones of the Red Man's ancestors, and the golden harvest waves over their tombs. The march of mind hath been to them the march to the grave. When ages shall have rolled away, and some youth shall ask his aged sire where the wigwam stood, he shall point to some flourishing city on the banks of the stream where once the Indian hunter bathed and viewed his manly limbs.

By wisdom, industry, and valor, the Republic of the United States has arisen to stand against the world. The forest has fallen before her hardy sons; the yelling savage has been tamed, and the Lion of England driven from her shores. Her government is superior to any in the world, and her country suffers not in comparison with any on the globe. The gardens of America are richly diversified with hills and dales, mountains and valleys, where spring walks to strew the earth with flowers, romantic and beautifully sublime. Here are beautiful rivers, smoothly gliding through green meadows or pastoral elegance, where the shepherd hums to his fair one the song of liberty. Here, sparkling fountains roll down the flowery mountain's side, and spread a thousand rainbows to the setting sun. Here, the roar of the headlong cataract is heard dashing its foaming billows down the rocks, like the crash of clouds, and stunning the ear with its clamors more tremendous than the roar of whirlwinds and storm.

It was in these scenes of poetry and romance that the Indian

hunter once stood and gazed at his image. It was in these scenes that he heard the Great Spirit in the tempest, and saw him in the clouds. It was on the banks of the lonely stream that he bowed down in adoration before the sinking sun. Alas ! it was here that he read his doom in the evening skies, and dropped a tear upon his country's tomb. But the council-fire has been extinguished, and the war-dance no longer echoes along the hills. In those beautiful scenes of poetry, the Indian lover no longer bows down and woos his dusky mate. They have retired before the march of mind, as the shades of night before the brilliant luminary of day.

Liberty has walked forth in her sky-blue caps to charm mankind, and the rays of science and philosophy are shed abroad in the land. The day is rapidly approaching when the glory and grandeur of Greece will be revived in the western world ; when America, thrice happy America, shall be denominated the land of science and of song. The idea is irresistible, that this land will yet be illuminated by a lamp of learning not inferior to those which shone on Greece and Rome. Another Homer may arise in the *West*, to sing the fame of his country, and immortalize himself ; and our history may ere long be as romantic as that of Greece and Rome.

There is a tide in human affairs, and there is a tide of empire. It flows in rivers of prosperity until it is full ; but when it ebbs, it ebbs forever. It would seem to the contemplative mind, as if there is a certain height to which republics shall aspire, and then be hurled into midnight darkness. The march of mind seems to attain a certain extent, and then return again to barbarism. The sun of science sets on one shore to rise in a happier clime. But, my country, ere thou shalt lay prostrate beneath the foot of tyranny and ignorance, this hand shall have moldered into dust, and these eyes, which have seen thy glory, closed forever. The warlike sons of Indian glory sleep in their country's tomb, but that fate is not decreed to those who now tread where the wigwam stood and the council-fire blazed. American glory has but just dawned.

EDUCATION.—The ladder to the temple of knowledge :—The medicine that purges the human mind of ignorance :—Old experience pointing out the road to young nature :—A water-pot among virtues, and a pruning-hook among vices :—A mental railway, beginning at birth, and running into eternity :—The showers of spring and the sun of summer, which expand and ripen the rich harvest of the mind



REV. L. M. PEASE.

MANY of our old subscribers will remember the sketch entitled "*Taming Wild Maggie*," which was published in THE STUDENT a little more than a year ago, giving an account of the origin of the day-school of the House of Industry, at the Five Points in New York. They will also remember the name of Mr. Pease as the person who was chiefly instrumental in the taming of that ragged, saucy girl, and teaching her to become the bright, intelligent, and gentle young lady that she now is. It is to the indefatigable labors of that noble-hearted, self-sacrificing man that New York is indebted for one of the most remarkable and successful efforts at reform, among the outcast and forsaken, that ever blessed any city or land under heaven.

Our readers are doubtless acquainted with the results of the efforts of Mr. Pease, and we will now give them a brief sketch of his personal history, accompanied with a portrait, which, though a good likeness, yet fails to convey a faithful idea of him as he is seen almost constantly engaged in those missionary labors which have enlisted his whole soul and energies.

Lewis M. Pease was born in Lisle, Broome County, New York,

August 25, 1818, in one of the rough log-cabins of the pioneer settlers of that region. His ancestors were from Canaan, Columbia County, in this State. There was no school near his home, and when Lewis was six years old, he was sent to one at the "Caldwell Settlement," some four or five miles distant. At fifteen, he manifested a strong desire for reading. He used to gather pine knots to serve him for a light, when candles were scarce, and as the light of them fell upon the pages before him, he improved both the evening hours and those of early morning.

When about eighteen he united with the Methodist Church, and soon afterward began to think of becoming a preacher. His father died when he was eighteen, and he went out to work on a farm, at ten dollars a month, to earn something to aid in supporting the family, and assist himself in gaining an education. After a hard summer's work he started for Cazenovia, N. Y., with twenty dollars in the pockets of his coarse suit of homespun, determined to get an education that would fit him for the new phase of life opening upon him.

When his money was gone he went to work and earned twenty dollars more, and then returned to his studies. The next winter he taught school. In this manner, alternating between work, teaching, and study, he qualified himself for his labors before he was twenty-five years of age.

As usual with the Methodist preachers, he was stationed at several places, from 1842 to 1848 chiefly within a few hours' ride from New York city. During these years he made frequent visits here, and spent much time in looking into the abodes of misery among the poor and vicious. He grew more and more interested in their behalf, and talked much about plans for rescuing these poor outcasts from society.

In May, 1850, he realized the dawn of his hope in this direction, by receiving an appointment from the bishop, to the destitute poor in New York city; and the ladies of the Home Missionary Society undertook the responsibility of providing him with a salary of nine hundred dollars a year. His plan of reformation was to provide those who had no means of support but begging and stealing with some employment, as a means by which they could earn bread without being driven to crime to obtain it. "The children must be fed," said he, "before they can be taught any thing useful in this life, or beneficial to them for the next." These views Mr. Pease has labored incessantly to carry out, and his labors have been attended with a remarkable success.

Believing he could do more good in an independent capacity, he disconnected himself from the Ladies Home Missionary Society, but continued his labors among the lowly, depending chiefly upon aid from contributions by the benevolent. He opened a work-shop, where he gave out sewing and shoe-making ; also a day-school and Sunday-school, and a place of religious worship. For four years he has labored, and still continues, amid the squalid wretchedness of the Five Points of New-York ; and the fruits of these years of toil are abundant, in the children saved from a life of degradation, misery, and crime, and of the fallen lifted up, and helped to earn a comfortable and honest livelihood.

SWALLOWS.

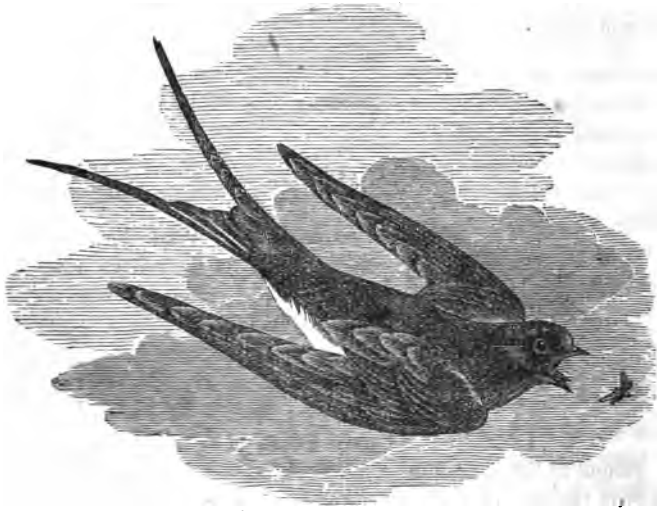


SWALLOWS! Who does not love them? To us they have ever been favorite birds. Often have we watched them in their busy labors, while gathering materials with which to build their nests, in early summer ; and have followed them with our eyes, as they darted past, to and fro, skimming near the ground at the approach of a storm, now and then dipping their wings in the smooth water of the gentle stream ; and they appeared so happy. We love their harmless presence ; their merry twitterings ; their clean and shining plumage. The world seems one of happiness to them, and it might be more truly such, were it not for the cruelty of some human beings.

On the *Boulevards* in Paris, a fashionable resort for promenading, where may be found seats for those who would rest or lounge, and convenience for refreshments, one often meets persons bearing long wooden cages, containing half a dozen or more swallows, usually young ones, which have been cruelly captured from their nests. These innocent birds are thus borne about, exposed to the view of those who may chance to be seeking pleasure or recreation, and frequent appeals are made to the passers-by to purchase the freedom of a bird. "Two cents for the liberty of one, only two cents ; take, ladies and gentlemen, it will bring good luck." Thus is carried on

a speculation with the sympathies and pity of the public. And many young swallows are bought free, and the poor trembling captives set at liberty, to sport at will through the free air. It is pleasant to observe the apparent joy of these birds as they fly off from the benevolent hands of their liberators.

"Do no harm to the swallow; he is the bird of God," has been often repeated to the young. Would that they might remember this humane injunction when arrived at manhood's years; and would, too, that they might never do harm to any of God's creatures.



Speaking of swallows in Paris, we are reminded of an incident which occurred in that city, and was related by an eye-witness. A swallow alighted on one of the colleges, and accidentally slipped its foot into a noose of a string attached to a water-spout. By endeavoring to escape, this string became drawn tightly around its leg. Its strength became exhausted in vain attempts to fly, and at length it uttered piercing cries, which soon assembled a vast multitude of swallows.

They seemed to consult together for a little while, and then one of them darted at the string, and struck it with its beak as it flew past; others followed in quick succession and did the same, each striking at the same place. After continuing this combined operation for half an hour, the cord was severed, and the captive set free to join the flights of its companions. What an instinct must those birds

possess, which could direct them to act under such circumstances as if guided by reason !

Summer has now closed, and the swallows, young and old, have held their meetings of preparation, on the roofs of the barns, for their journey south. Each parent-bird has instructed its young that, before the cold winter cramps the insects, they must escape to some distant, warmer clime. The course of the journey has been pointed out to the inexperienced traveler, by short excursions. As the chilly nights come on, and a frost, they improve a bright morning, and rising in flocks high above the trees commence their journey.

They often rest for a short time on their way, when some suitable spot is found ; but they hasten forward to Florida and the southern coast of the Gulf of Mexico, ere they tarry long. Most of them, on the approach of cool weather there, go still farther south, to pass the winter in a warmer clime.

Happy, charming bird, adieu ! But when the genial rays of spring shall again revisit earth, come thou, as a harbinger of milder weather ; cheer us with thy presence ; and receive a hearty welcome in our midst !



ANECDOTES OF GEOLOGISTS.

THE geologist, while making his researches, usually dresses for the occasion, with little regard to personal appearance ; hence his standing in society is often misjudged. On one occasion Professor Sedgwick, after becoming fatigued in his labor among the rocks, stopped at a country inn for a lunch. On asking what he had to pay, he was told "fourpence." He remarked on the smallness of the charge. "Ah, sir," said the landlady, "I should ask eightpence to any one else, but I only ask fourpence from you, for I see you have seen better days." At another time a lady stopped by the roadside where he was working, and, after making a few inquiries, gave him a shilling, because his answers were so intelligent for his station. He met the same lady at dinner next day, to her great astonishment.

A well-known English geologist on one occasion, with his pockets full of the day's treasures, took passage in a stage-coach, and, being tired, fell asleep. Waking at his journey's end he was horrified to find his pockets empty. An old woman who sat beside him feeling his pockets full of stones, took him for a madman, so she slyly picked out the fossils and tossed them on the road-side.

THE DUCK AND THE HEN.

A LESSON FOR THE CONCEITEDLY WISE.

DUCKS are not generally considered the most careful mothers in the world. But among all the careless mother-ducks, the one at the cottage near the Round Duck Pond was really more careless than all the rest of them put together. Scarcely were her broods fledged, when she would set off on long walks through the tall clover of the pasture, striding along at a great rate, without ever turning her head, or stopping to see what had become of her poor ducklings. They of course ran after her as fast as they could; but first one, then another, would stick fast, or upset backward, in the entangled clover. Of those that did continue to tumble on and keep up, every now and then one would be nearly crushed by the broad foot of their mother, for she waddled on without looking to the right or left. In short, she managed so badly, and always lost so many of her little ones, that the whole poultry-yard cried shame upon her.

Many of her neighbor ducks contented themselves with saying disrespectful things of her behind her back. Others, who were more kindly disposed and better mannered, went so far as to remonstrate with her on her conduct. The careless duck, however, gave not the slightest heed either to the backbiters or her friendly advisers. For the former, she professed a contempt that would have been exceedingly painful to those individuals, had they been at all aware of it; and to the latter, she said that "it was owing to her organization, so, of course she could not help it."

But if the ducks were scandalized by her glaring neglect of her family, it may be imagined how the hens went on! They scarcely ever met at a scratching-party in the dust, without talking about the careless duck, and the disgrace she was to the yard. They even accused her of losing, and treading upon her ducklings on purpose. Indeed, they pronounced her whole mode of rearing her children vicious in the extreme, and alike opposed to reason and experience. One old hen sighed, "All can't be hens; ducks are in the world, and we must try to bear with, if we can't mend, them."

There was always seen at these scratching-parties one hen in particular, who conceived her special mission in the world to be that of setting every body else right. A good-natured creature she was, and always ready to serve a friend; but her excessive self-esteem

led her to bestow even her kindnesses of this sort with such an air of superiority, at once offensive and ridiculous, that those who knew her never cared to receive them. She was good-looking, and she knew it; white body, and black legs; a contrast that she admired. She thought herself the handsomest and wisest hen in the world—a very comfortable opinion.

Well, being so much wiser than the rest of the world, our knowing hen naturally thought that she both knew better than any fowl among them the cause of the duck's rearing so few of her brood, and also the proper way to remedy the mischief. Here was her self-conceit. Her kindly feelings had been roused by finding one of the little ducks dead among the weeds at the edge of the pond, that very morning. So she resolved to go at once and correct both the theory and practice of Mrs. Duck.

Accordingly she set out for the nest, and was received civilly. After a few observations upon the weather, in which the duck hoped it would rain, and the hen that it would keep fair, the latter began by a brief allusion to the melancholy fate of the deceased duckling. After hinting, delicately enough for her, at the duck's want of care for her little ones, she proceeded to tell her what she considered the true cause of the mortality that prevailed among them, and that it was from their being always taken into the water. Being opposed to Hydropathy, she continued, "The external use of cold water, I believe to be exceedingly injurious. A little is good, for drinking, but any thing further is positively injurious. It chills the system, and consequently enfeebles the vital powers, to spend so much time in dabbling and bathing. An old duck, inured to water by long custom, might not be injured by it, but what result could be expected from so pernicious a practice when tender infants were the subjects of it, other than that which had been so deplorably manifest in your own household?"

The duck, who had never before been so talked to in her life, did not know what to say to all this. She had often thought it very stupid of the hen to always stay on dry ground, and to be so afraid of wetting her feet; but it had never occurred to her that any body could possibly find fault with her own practice. However, she at length replied that she thought it more *natural* to go into the water; adding, that her children liked it, and she thought it did them good.

"Look at me," said the hen; "did you ever see any one more healthy in your life? I never bathe; and as for my chicks, I do not lose half so many of mine as you do of yours—a plain proof

that scratching in the dust is infinitely more wholesome than sailing on that dirty duck-pond ; besides, it is much cleaner."

To this the duck could only urge, that not only herself, but all her relations, as far back as she could remember, had always felt themselves as much at home on the water as on dry land. Her mother had taken her to it as soon as she was hatched ; and, in short, she believed there never was a duck since the world began who did not consider herself decidedly as much of a water-fowl as a land bird.

To this the hen calmly but firmly replied, that "the length of time that an absurd custom had prevailed was, to a reasonable mind, not the slightest argument for its continuance. My own internal convictions assure me that dabbling in water is useless, dangerous, and, allow me to add, *dirty* ; and I am amazed that you should not have sufficient strength of mind to break through this mere prejudice in its favor. I am, however, perfectly willing to prove to you that I am correct in my views concerning this matter. Let me have the hatching and training of your next flock, and I will engage that they shall never wish to go near the water."

The duck, who was not naturally fond of children, readily assented to this. So it was arranged between them. In due time the eggs arrived. The hen sat upon them with the greatest patience ; and out came the little ducks. She did not think them half so handsome as chickens. "But," said she, "a parent's duty does not depend upon the beauty of her chickens. If ducks *are* ugly, that is no reason why their mother should neglect them, and ruin their constitutions by exposure and damp." And she thought to herself how much *education* should do for these poor little unfortunate things.

They were all fine, strong ducklings ; and after the farmer's wife had clipped off a bit of their tails, to prevent their being overweighted behind, our hen strutted about the yard with them as proud as could be. She stood on tip-toe, clapped her wings, "cluck-clucked" to them, and began to think that even little ducks might be loved. And she led them past the pond with an air of conscious pride, as she thought how that dull duck would be convinced at last.

But oh, dear, dear ! She stopped, only a minute, to chat with a friend, and on turning again to her charge, what did she behold ! —the whole of her brood of ducklings merrily floating on the sunny surface of the duck-pond, like a little fleet. And as she stood dancing with impatience, loudly calling the little ungrateful rogues to come back, or they would all be drowned, along came their mother, who knew them in a moment, and laughing at the wise old hen, she

tumbled heels over head into the water, and splashed about with the young flock. Then turning again to the patient creature who had so generously saved her the trouble of hatching her brood, she cried out, "What an excellent nurse you are! *Do* venture into the water! You can't think how much good it will do you!"

The poor, duckless hen hung down her head, for all the fowls in sight of the pond were laughing at her. Even her own relations were rather pleased than otherwise, to see her self-conceit so thoroughly mortified. She turned away sadly, and walked home alone, with a sort of half idea in her head, that it was barely possible, after all, that she had been mistaken in thinking that she knew every thing, better than every body else.

POISON VALLEY.

THE most remarkable natural example of an atmosphere overloaded with carbonic acid gas is the famous Poison Valley, near Batten, in the island of Java. Mr. Alexander Loudon, who visited it a little more than a year ago, gives the following description of it, in a communication to the Royal Geographical Society of London.

"This remarkable locality is known by the name of Guevo Upas, or Poison Valley. Following a path which had been made for the purpose, the party shortly reached it with a couple of dogs and fowls, for the purpose of making experiments. On arriving at the mountain, the party dismounted and scrambled up the side of a hill, at a distance of a mile, with the assistance of the branches of trees and projecting roots. When at a few yards from the valley, a strong, nauseous, suffocating smell was experienced; but on approaching the margin, the inconvenience was no longer found.

"The valley is about half a mile in circumference, of an oval shape, and about thirty feet in depth. The bottom of it appeared to be flat, without any vegetation, and a few large stones scattered here and there. Skeletons of human beings, tigers, bears, deer, and all sorts of birds and wild animals, lay about in profusion. The ground on which they lay at the bottom of the valley appeared to be a hard sandy substance, and no vapor was perceived. It was proposed by one of the party to enter the valley; and each of the party having lighted a cigar, managed to get within twenty feet of the bottom, where a sickening, nauseous smell was experienced, without any difficulty of breathing.

"A dog was now fastened to the end of a bamboo and sent to the bottom of the valley ; while some of the party, with their watches in their hands, observed the effect. At the expiration of fourteen seconds he fell on his back, without moving or looking around, and continued alive only eighteen minutes. The other dog now left the party and went to his companion. On reaching him, he was observed to stand quite motionless ; and at the end of ten seconds fell down ; he did not move his limbs afterward, and lived only seven minutes. A fowl was now thrown in, which died in a minute and a half ; and another, which was thrown in after it, died before touching the ground.

"A heavy shower of rain fell during the time that these experiments were going forward, but we were so much interested in them that the rain was quite disregarded. On the opposite side of the valley to that which was visited, lay a human skeleton, the head resting on the right arm. The effect of the weather had bleached the bones as white as ivory. This was probably the remains of some wretched rebel hunted toward the valley, who had taken shelter there, unconscious of its character. I was anxious to procure this skeleton, but any attempt to get it would have been madness."

TRUTH.

IF there is one thing more than another which we would teach a child, it would be to love the truth. All other things would be worthless without that crowning excellency in human character. Without it the noblest structure is but a whited sepulcher. With all other qualifications, a man is to be shunned when deficient of this. The beholder may admire a fabric of general beauty and symmetry, but when the seam of falsehood is found running from cap-stone to base, he will shun the dangerous presence.

There are few things more painful, experienced in our intercourse with men, than to feel that they are unworthy of our confidence ; that they are not what they seem ; that they will betray while they smile ; that we tread upon a crater's crust where all is hollow beneath. Teach the child to tell the truth, to venerate and love it. Teach him so that, whatever wrong he may commit, he will frankly and promptly admit it all. Reward the honest speech. Washington's father was never prouder of his boy than when he acknowledged his falsehood.—*Cayuga Chief.*

Youth's Department.

THE THREE SPINSTERS.

A TALE FROM THE GERMAN.

BY ANNE P. ADAMS.

THERE was once a lazy maiden who would not spin, and her mother might say what she pleased she could not persuade her to it. At last, anger and impatience overcame the mother, and she gave her a beating, at which she began to weep aloud. Just at that time, the Queen rode by in her carriage, and when she heard the weeping, she stopped her carriage, entered the house, and inquired of the mother why she was beating her daughter so that one in the street could hear the weeping? But the woman was ashamed that the idleness of her daughter should be discovered, and she said, "I can not divert her from spinning; she will forever and ever spin, and I am poor, and can not procure flax."

Then answered the Queen, "There is nothing I so much delight in as spinning, and I am never in better spirits than when the wheel is whirring; let me take your daughter to my castle; I have flax enough; there she may spin as much as she pleases."

The mother very willingly consented, and the Queen took the maiden away with her.

When they were come to the castle, she led her up to three chambers, which were full from top to bottom of the finest flax. "Now spin me this flax," said she, "and when you get it done, you shall have my oldest son for your husband; though you are poor, I will not mind that—your unremitting industry is dowry enough."

The maiden was inwardly frightened, for she could not spin the flax, not even if she lived to be a hundred years old, and should sit there every day from morning till evening. When she was alone she began to weep, and sat so three days, without stirring her hands. On the third day the Queen came, and when she saw that nothing was yet spun, she was astonished; but the maiden excused herself by saying, that she had not yet been able to commence her work because of the great sadness caused by her removal from her moth-

er's house. The Queen excused her, but said, on going away, "To-morrow you must begin to work."

When the maiden was again alone, she was perfectly at a loss what to do, and in her grief she went to the window. There she saw three women coming toward her, of whom the first had a huge splay-foot, the second had so large an under lip that it hung down over the chin, and the third had a large thumb. When they were in front of the window they stood still, looked up, and inquired of the maiden what ailed her. She told them her trouble; they offered to help her, and said, "If you will invite us to your wedding, and not be ashamed of us, if you will call us your aunts, and also give us a seat at your table, we will spin up the flax for you, and that in a short time."

"With all my heart," answered she; "come in now and begin the work immediately."

Then she led the three wonderful women in, and made a hole in the first chamber, where they could sit and begin their spinning. The first drew out the thread and trod the wheel; the other moistened the thread; the third twisted it, and beat with her fingers upon the table, and as often as she beat, a skein of yarn most delicately spun fell to the earth.

The maiden concealed the three spinsters from the Queen, and showed to her, as often as she came, the quantity of spun yarn, so that there was no end to the Queen's praises. When the first chamber was empty, they went into the second, at last into the third, and this also was soon finished. Now the three women took leave, and said to the maiden, "Do not forget what you have promised us—it will be for your happiness."

When the maiden showed the Queen the empty chambers, and the great heap of yarn, preparations were made for the wedding, and the bridegroom rejoiced that he was going to have so skillful and industrious a wife, and praised her very much.

"I have three aunts," said the maiden, "who have done me much good; I would not willingly forget them in my prosperity; pray allow me to invite them to the wedding, and to seat them at the table."

The Queen and the bridegroom willingly gave their consent.

When the feast began, the three spinsters walked in, dressed in very singular costume, and the bride said, "Welcome, dear aunts."

"Ah," said the bridegroom, "how did you come by such ugly relatives?" Thereupon he went to the first with the great splay-foot, and inquired, "How did you get such a large foot?"

"By treading," answered she, "by treading."

Then he went to the second, and said, "Do tell me how you got such a huge under lip?"

"By licking," said she, "by licking."

Then inquired he of the third, "How did you get such a large thumb?"

"By twisting thread," said she, "by twisting thread."

Then the king's son was frightened, and said, "Then my fair bride shall never again touch a spinning-wheel." Thus she got rid of the disagreeable task of spinning flax.



AMBITION.

MOST of the young readers of *THE STUDENT* have probably read something of the history of Rome and Greece, and other ancient nations. They have there met with the names of Julius Cæsar, and Alexander, and many other great men, who were called *ambitious*. But have they ever paused to reflect upon the meaning of that word? Have they ever felt that they, too, should, nay, *must* be *ambitious*, if they would attain any of the proud positions which have so filled the mind in the bright day-dreams of youth? Perhaps not.

Ambition is the desire or determination to be superior or greater; to excel others. This is as simple as I can render it. But this sentiment may become perverted, and then it sometimes leads to evil. Thus, in the case of the two conquerors whom we have mentioned above. Their whole lives were spent in bloodshed and destruction. They enslaved nations to render themselves great, and robbed the sanctuaries, and profaned the temples of other lands, to enrich their own. Where were beauty and innocence, they left desolation and guilt; and yet in after years, when their vices and follies were forgotten, their deeds stand blazoned upon the page of history as great ones. They were heroes and valiant in name, and mighty to destroy.

Such is not the ambition we should have. There is another, a better, wider, and more glorious field than that of war. There is one in which we may live, and leave a name, which shall remain forever; the remembrance shall be like an ever-gushing fountain of pure water, which shall strengthen and encourage the good in all ages.

History records other names besides those which are steeped in

blood ; men whose ambition was to do good ; to benefit their country or their race ; to alleviate the sufferings of the poor ; to raise the fallen, and promote the well-being of all. Such are examples worthy to be followed. Such are characters eminently worthy of imitation.

Again, there have been men whose lives were devoted to the advancement of science and the encouragement of art. These also have attained a high degree of regard in the world, but it has been by the most persevering application and the highest ambition.

Let every youth who reads this article, remember that all those great names which we point to with so much pride or pleasure were *ambitious* men. Let them remember that those who succeed in our own day, are ambitious. They once were like yourselves, full of hope ; buoyant with expectation, and resolved to attain the highest eminence. They were ambitious ; but they were also persevering, and bringing every effort to bear upon their high hopes, they have succeeded. Let no young person imagine that greatness will come without labor. No ! He who would become great, must *labor* for it, must persevere until the end is attained.

But there is one other kind of ambition to which I must allude ; it is the ambition to *do* good, to *get* good, and to *be* good. Perhaps you may smile when I say that *this* should be our *highest ambition*, but it is nevertheless true. Out of our immediate circle of acquaintance none may hear of us, and no historian may write our name upon his page, but within a better book our name shall be written in letters of gold, that shall not fade or be forgotten. It is the "Book of Life," upon whose page it should be our very strongest desire to have our names inscribed, and if we follow a correct and pure course of life, we may attain that end.

That *such* may be the ambition of all young readers of THE STUDENT is the earnest wish of

UNCLE ROGER.

DON'T BE IDLE—If you have any work, or an errand to do, go and do it at once. If you have a lesson to learn, *now* is the time to learn it, before doing any thing else. When all these are finished and you have nothing to do, read. Don't play all the time. You need exercise ; play enough for that. But when you are in the house, don't be idle. Get a book and read ; read aloud to your sister, or mother, while she is sewing.

Microscopic Views.—No. 6.

SELF-DIVISION OF ANIMALCULES.

BY UNCLE GEORGE.

IN looking over the field occupied by a drop of fresh water from the pond, I find among many rare things, one peculiarly rare to those who have not made microscopic life a study. Here is a minute creature, apparently without a shell, preparing to twist himself deliberately in two.

"Oh, Uncle George, let me see him!"

"Let *me* see him!"

"Let *me* see him! is he going to commit suicide?"

"One at a time here, you know. He is *not* intending to take his own life, but to make two lives of his one; and supposing his name were Johnny, which will be Johnny when he has separated his body into two complete animals?"

"Oh, dear, I don't know; but *'twill kill him*; and I should think he would rather have eggs and *set*, like a hen, than to twist himself up into bits; and then what will his tail do for a head?"

"The creature seems to be so formed that new organs put forth at need; and as for eggs, the learned say, that many of these infusoria, as they are called, not only lay eggs to propagate their kind, but bud and sprout new animals from their sides, like branches of a tree, and separate themselves into two or more of their kind, and all with such rapidity, that from a single individual of some kinds, will be produced millions in twenty-four hours. Willie, what progress has our little fellow made in freeing himself from the state of single blessedness?"

"Oh, he's rather slow; I guess he's afraid to twist real hard, but his long oval body is drawn in at the waist pretty tightly, so that he looks like a peanut pod with two meats in it."

"And these are his fellows are they? these green chaps that wander around without legs or fins, or any visible means of getting along in the world, like vagabonds in a small way."

"Yes, Johnny, that is the family, but what their name is I am not aware, unless they are larger specimens of our sole-shaped animalcules. Their cilia, or fine hair-like arms, are probably too minute for us to see; or they may propel themselves on the screw princi-

ple, as there is a gouge-like concavity on their under side, which shows as they turn up, like a half spiral groove."

"Now, now, I guess that lonesome one has made up his mind to split, for he twists and wriggles, and pulls, and his waist gets smaller and smaller, like a fashionable lady's; and now his body looks like two green plates just touching at the edges—and now he twists it again—there he goes in two! No—not quite, and now he has stopped to rest."

"I wonder if t'other half begins to think what it will do when its old head is gone."

"I guess so, Jennie, for it has minded its head half, all the while till now, and gone the same way with it, but now it takes a notion of its own, and pulls the other way—there—there, snap! and away they go eating and drinking, like any little bugs that never had a split, as friendly as neighbors, but not a bit familiar."

"Well, that upsets all my notions of life; I have heard of "they twain" becoming "one flesh," but to split up one flesh into two living creatures, seems to be making divorce answer the ends of marriage. But I must see the next one divide, Uncle George, may I not?"

"Yes, Willie, if we happen to see another in the act of separation. You have doubtless heard of the Polype, that clings to stones and sticks, and thrusts from his flexible body seven or eight, and even ten long, fleshy arms?"

"Oh, yes, I have heard of such things, that would dart from the rocks and crush divers in the bottom of the sea, where they had gone for shells and sponges!"

"Very extravagant Polypes those, and smacking of the fabulous; but among your weeds here, I discover one measuring about the eighth ($\frac{1}{8}$) of an inch. Look at this with a moderate power of the microscope."

"Ah, how terrible, with his eight knotted arms creeping out slowly, like so many great worms! Oh, ho!"

"Fanny shudders, and no wonder; I think those must have been looking in the microscope who told of the Polypes strangling men in the bottom of the sea."

"Why, Jennie, did you see this little one sprouted out of the large one, with little short arms, that he draws in and runs out just like his mother? Ho! now its all drawn down in a heap, little one and great one together—how funny!"

"Self-division so upsets your notions of life, Willie, what would

you say to see an animal survive the complete slashing to pieces of its body with a sharp knife, and every piece become a new animal?"

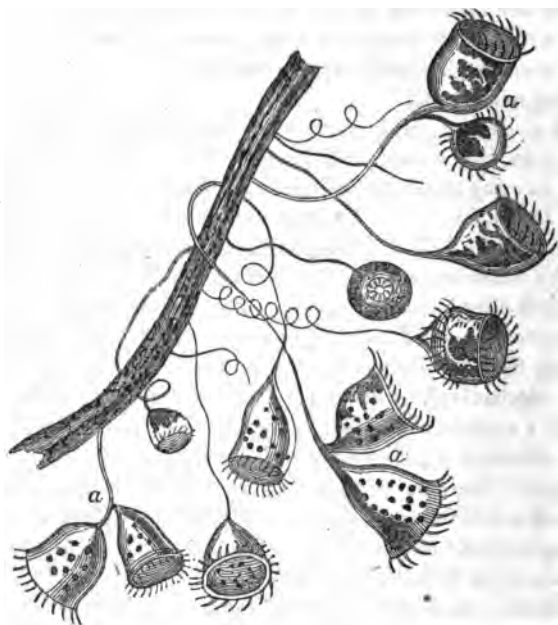
"If that *can* be, I should say the best way to raise calves would be to plant mince meat."

"Neat stock will hardly survive the operation, but the Polype has been cut into ten or twelve distinct sections, and each portion put forth the missing members, and made a complete animal. Split one from top to bottom, leaving the two halves united at the lower extremity, and each half will complete itself, and the two animals live united like Siamese twins. The sprouts which you see, leave the parent stock after becoming mature, but sometimes not till they show in themselves the swelling germ of a new sprout. It is supposed by naturalists, that the Polype has the power of paralyzing its prey, like the electric eel, as its touch has been seen to make torpid, worms of a considerable size. Johnny, what discoveries? I see you look elated as a gold-hunter who has found a nugget."

"Nuggets! there never were any such curious things as I see here, found in California—I know; I slid the glass along a little, and 'scared up' a whole bed of tulips, in full bloom, and then they darted back again to the beautiful tree they grew on, for they clung to the trunk of a tree—and then crept out again with their long, slender stems uncoiling just like the wire spring that pushes the window-catch out."

"Well done, Johnny, you've improved your time while we have all been waiting. Let us see now; oh, how curious! how slowly they uncoil their thread-like stems, and how swiftly they coil them back again; and there are two flowers on one stem; and there are some that seem partly opened like buds, and all about the top of the open flowers are fine fibers, as hairs, that seem like the stamens of them, and they flutter and bring the prey of the animate flower into its reach, on the whirls they make in the water. Do you know them, Uncle George?"

"Yes, it is a group of the bell-shaped animalcule which you have found: and they seem indeed like animate flowers, with their graceful forms and slender stems. They propagate by self-division, and the stem with two flowers is a specimen of one actually divided. The little spots which fleck the sides of the bell, are the stomachs of the animal seen through its transparent surface. You see, likewise, several stems without their bells; from these the animals have broken and gone off to a life of private independence. Johnny's tree trunk is but a minute stem of a water-plant, a thing beautiful in it-



BELL-SHAPED ANIMALCULES.

self, as are hundreds of specimens not at all pleasant to the naked eye."

"Oh, yes, I saw that this green slime which I called 'frog's spittle,' was a very beautiful thing—a bundle of green and gold and silver tubers, transparent and figured with many fine forms."

"Ay, Willie, we will devote an hour to it some day. The more we see, the more inexhaustible appear the things to be seen."



SATIRE AND SATIRISTS.—Satirical writers and speakers are not half so clever as they think themselves, nor as they are thought to be. They do winnow the corn, 'tis true, but 'tis to feed upon the chaff. I am sorry to add, that they who are always speaking ill of others, are also very apt to be doing ill to them. It requires some talent and some generosity to find out talent and generosity in others, though nothing but self-conceit and malice are needed to discover or to imagine faults. It is much easier for an ill-natured man than for a good-natured man to be smart and witty.—**SHARP.**

THE TWO CLERKS.

BOYS are apt to think they are kept too strict when they are required to attend school regularly, and get perfect lessons, and to work for their parents, and to go to Sabbath-school, and to be punctual in all these things. They are apt to think it hard, also, that they are not allowed a great many amusements and indulgences, such as some other boys may have. "What's the use?" they often discontentedly ask.

Well, boys, there is a great deal of use in being brought up right; and the discipline which sometimes seems to you so hard, is precisely what your parents see that you need in order to make you worth any thing; and I will tell you an incident which has just come to my knowledge, to illustrate it.

William was the eldest child of a widowed mother, and she looked upon him as her future staff and support. He was trained to industrious habits. The day-school and the Sabbath-school seldom saw his seat vacant. Idleness, that rust which eats into character, had no opportunity to fasten upon him.

By-and-by he got through being a school-boy, and succeeded in getting a situation in a store in the city. William soon found himself in quite altered circumstances; the stir and bustle of the streets was very unlike the quiet of his village home. The tall stores, loft upon loft, piled with boxes and bales of goods, now drew his attention instead of books and bat. Then the strange faces of the clerks, and the easy manners and handsome appearance of the rich city boy, Ashton, just above him in the store, filled his mind with many new thoughts.

William looked at Ashton almost with admiration, and thought how new and awkward every thing was to himself, and how tired he got standing so many hours on duty, and crowding his way through the busy thoroughfares. But his good habits soon made him good friends. The older clerks liked his obliging and active spirit, and all had a good word for his punctuality.

But William had his trials. One morning he was sent to the bank for money, and returning, laid the pile on the counting-room desk. His master was gone, and there was no one in the room but Ashton. Mr. Thomas soon came back. "Two dollars are missing," said he, counting the money. The blood mounted into poor

William's face, but he answered firmly, "I laid it all on your desk, sir." Mr. Thomas looked steadily into the boy's face, and seeing nothing but an honest purpose there, said, "Another time put the money into my hands, my boy."

When the busy season came on, one of the head clerks was taken sick, and William rendered himself useful to the book-keeper by helping him add some of his tall columns. Oh, how glad he was then for his drilling in arithmetic, as the book-keeper thanked him for his valuable help!

Ashton often asked William to go and ride, or visit the oyster saloons, or the bowling-alley, or the theater. To all invitations of this kind William had but one answer, and that answer was, *No*. William always said he had no time, or money, or strength to spare for such things. After the day's work was done, he loved to get back to his little chamber, and read a good book, or enjoy a pleasant little talk with some of the boarders, or think of home and his mother's love, and all she desired he might become. He did not crave perpetual excitement, or any more eating or drinking than was supplied at his usual meals.

Not so with Ashton. Ashton had indulgent parents, and a plenty of money, or it seemed so to William; and yet he eat it, or drank it, or spent it in other things so fast and so soon that he was often borrowing from other clerks. Ashton joked William upon his stiff notions, but the truth was, that William was far the happiest of the two.

At last a half bale of goods was missing; searching inquiries were made, and the theft was traced to Ashton. Oh, the shame and disgrace of the discovery! yet, alas! it was not his first theft. Ashton had been in the habit of petty pilfering, in order to get the means of gratifying his taste for pleasure; and now that his guilt had come to light, he ran off, and before his parents were aware of it he had fled for California, an outcast from his beautiful home, from his afflicted friends, from all the comforts and blessings of virtuous life.

William is rapidly rising in the confidence and respect of his employers, ever faithful in duty. There is nothing new in all this; such things are happening every day, and what I want you to do, boys, is to mark the lesson which they teach, *that vicious indulgences will certainly lead to shame and ruin, while truth, virtue, honesty, faithfulness, and solid worth have an exceeding great reward.*

—Selected.

THE PRACTICAL JOKER.

ARTHUR was a bright little boy of ten years, and his pleasant face and cheerful spirit seemed like a ray of heaven's own blessed sunlight in his mother's otherwise solitary dwelling. But I am sorry to say, Arthur was not loved by his companions. He was a practical joker, and his little friends were in constant fear, when in his company, of having some unpleasant trick played upon them. If they went to gather nuts or berries, he did love to kill a snake and throw it around some boy's neck, just for the fun of hearing him scream. When they went to bathe, they often found a frog in their pockets, or their shoes would be filled with angle worms. And he was sometimes so very cruel as to take away a boy's dinner, and fill his basket with stones.

These things were very annoying, and at length Arthur was left to play alone, or go home to his little sister. Dear little Eliza was just beginning to go to school, and Arthur loved her very much. But his love of "fun," as he called it, was sometimes so strong, that he would even overturn his sled, and throw the sweet little girl into the snow.

His mother strove in vain to correct this cruel propensity, and she felt some anxiety on his account, when a new father came to take charge of his education. His own father died when he was a babe, and of course he had never known a father's love. But he was very much pleased when a pleasant, smiling gentleman came to live with them, and he was told that he might call him father.

One morning, a few days after Mrs. M. was married to Mr. L., Arthur was told to cut some potatoes and give them to the cow. He obeyed very cheerfully, cut the potatoes, and carried them to the barn; but when he placed them before the cow, he turned a peck measure over them, so that the cow could not eat them. "My son," said Mr. L. when he returned, "did you give the potatoes to the cow?"

"Yes, sir," he replied; but the merry twinkle of his eye led his father to suspect something wrong, and he very soon went to the barn himself. Arthur was frightened when he saw him go out, for he expected a whipping. But no notice was taken of the *joke*, as he called it.

Soon there came a snow-storm, and when it passed away, the

snow lay piled in deep drifts on both sides of the road. Arthur started for school the next morning, drawing his little sister on his sled; but when he came near the deep drifts, suddenly the sled overturned, and Eliza was buried in the snow. Arthur sprang to take her up, and very tenderly led her back to the house. But his father stood at the window and saw the whole transaction.

Next morning Mr. L. said, pleasantly, "I'll draw you to school this morning if you like." Arthur was delighted. He thought his father was very kind indeed. But when they came to the drift, suddenly the sled was overturned, and he was buried in the snow.

"You must learn to hold on better than this," said Mr. L., "if you mean I shall draw you." And he quietly returned to the house, leaving Arthur to get out as he could.

"Oh! chicken for dinner! chicken for dinner!" shouted Arthur as he returned from school, finding his favorite dish on the table. They were soon seated, and Mr. L. helped Arthur to a large plate full. But just as he was taking up his knife and fork, his father took up a large bowl that stood by his plate and turned it over Arthur's dinner. At first he looked up in surprise, but he immediately understood it. He was very hungry, but he did not dare to remove the bowl. The rest of the family began to eat, but he sat looking very red and unhappy. At length he burst into tears.

"Father," said he, "I never will put the peck-measure over the cow's dinner again, and I'll never turn sissy into the snow again, if you'll let me eat my dinner."

"Very well, my son," said Mr. L., removing the bowl; "you find practical jokes are not *very pleasant* when played upon yourself. Always remember, that if you would be loved and respected, you must do by others as you wish others to do by you."—*N. Y. Independent.*



THE EFFECTS OF VICES AND FOLLIES, when so portrayed as to familiarize the mind with them, as in trashy literature, is most truthfully and forcibly depicted by the poet in the following lines:

"Vice is a monster of such hideous mien,
That to be *hated*, needs but to be seen;
Yet, seen too oft, *familiar* to the face,
We first *endure*, then *PITY*, then *EMBRACE*."

Children's Department.

MARY ANNE'S FAULT.

THE little girl of whom I am going to tell you, is a nice child, and has many good qualities; but there is one fault which mars all, and takes away much of the loveliness of her character. It prevents her friends from loving her as dearly as they might, were it not for this.

If it were some natural defect which she could not help, none could blame her; none would love her less for it. But it is something she could easily overcome; a fault which she did not use to have, but which grows upon her every day.

Mary Anne has a pleasant face. When lighted with a kind and cheerful smile, it is as pleasing a countenance as one would ask to see. But, alas! this ugly fault so mars its good looks, that I often turn from it with a great deal more pain than I would from the homeliest features childhood ever wore.

Shall I tell you what that fault is? Perhaps some of my young readers have the same fault, and they might not like to hear about it. We hope, if any of them are so unfortunate as to possess it, that they will get rid of it at once, when they have learned what it is.

Mary Anne's fault is—*looking angry* when she is reprimanded or corrected in any way. When told, if ever so gently, to do something in a different way from what she chooses; or if ever so kindly it is suggested that she might do her work a little better than she has done it, a dark frown falls on her brow!

By being cross she destroys the peace and pleasure of those around her. She is only corrected for the sake of making her become a useful, happy woman; but she does not seem to see it so. Instead of being thankful to any

friend who tries to lead her in the right way, she looks displeased with the gentlest reproof.

Is it not a pity that so sweet a child as Mary Anne might be should have this ugly fault? She does not know how it spoils her.

But this little girl can overcome this fault, if she will. So can you overcome your faults, little readers, if you will try in earnest.

Some children always want their own way, and are angry when not allowed to do just as they please. They do not realize how important it is that their parents train them to do right.

Suppose we should never train the vines and trees in the garden, how crooked many of them would grow! Just so it is with children who will not follow the training and advice of older friends and their parents—they grow crooked.



THE CAT AND THE CANARY.

A LADY had a pretty canary-bird which was so tame that she allowed it to leave its cage and fly at large in her apartment. She had likewise a fine large cat, which she had trained to treat her bird with gentleness, so that they were very good friends.

One morning the bird was hopping about the room, picking up crumbs from the carpet as usual, when the cat, which was asleep on the rug, suddenly sprang up, and seizing the bird in her mouth, jumped with it upon the table.

The lady was alarmed for the life of her favorite bird, and starting from her seat was about to visit her displeasure upon poor pussy, when she discovered the occasion of the cat's unusual behavior.

The door had been left open, and a strange cat had just crept into the room, intent to make the bird his prey, had not the friendly puss so seasonably rescued her. The lady immediately turned out the intruder, when her own cat

leaped off the table and released her affrighted captive without doing it the slightest injury.

It was the nature of this friendly puss to destroy every bird within her reach, but in respect to canary she had learned self-control. And can not a child overcome his natural tendency to selfishness, anger, or any other fault, as well as the cat her disposition to destroy birds? It can be done, my little friends. Will you try? It will make you lovely in the sight of all.—*Child's Paper*.

"I WILL BE GOOD TO-DAY."

"I WILL be good, dear mother,"
I heard a sweet child say,
"I will be good, now watch me—
I will be good all day."

She lifted up her bright young eyes
With a soft and pleasing smile;
Then a mother's kiss was on her lips,
So pure and free from guile.

And when night came, that little one,
In kneeling down to pray,
Said, in a soft and whispering tone,
"Have I been good to-day?"

Oh, many, many bitter tears
'Twould save us, did we say,
Like that dear child, with earnest heart,
"I will be good to-day."

—*Selected.*

How to HAVE BRIGHT EYES.—Shut them early at night, and open them early in the morning. Learn to read good books, and improve all your time in study, or work, or useful play; and be cheerful, pleasant, and kind to all.

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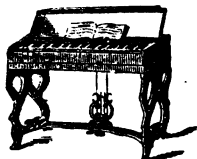
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